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REPORTS OF THE
DEPARTMENT OF THE INTERIOR

FOR THE FISCAL YEAR ENDED JUNE 30

1910

ADMINISTRATIVE REPORTS

IN 2 VOLUMES

VOLUME II

INDIAN AFFAIRS

TERRITORIES

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Administrative reports, in 2 volumes.

Vol. I. Secretary of the Interior.

Bureaus, except Office of Indian Affairs.

Eleemosynary institutions.

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Vol. II. Indian Affairs.

Territories.

Report of the Commissioner of Education, in 2 volumes.

II

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**REPORT OF THE COMMISSIONER OF'
INDIAN AFFAIRS.**

REPORT OF THE COMMISSIONER OF INDIAN AFFAIRS.

DEPARTMENT OF THE INTERIOR,

OFFICE OF INDIAN AFFAIRS,

Washington, November 1, 1910.

SIR: I have the honor to transmit herewith the Seventy-ninth Annual Report of the Office of Indian Affairs covering the period July 1, 1909, to June 30, 1910.

EMPLOYEES.

Several changes in the policy of the service have been made with a view to improving the personnel and increasing the efficiency of its employees. The constant shifting of employees from one school or agency to another has in the past been the bane of the Indian Service personnel. For various reasons, either through the importunities of the employees or their friends or on account of some dissatisfaction, the pressure to make these changes has been exceedingly great. The evil has been largely eliminated by prohibiting transfers at indiscriminate times during the fiscal year. This rule has been closely adhered to with reference to the schools, with the consequence that now these changes, with few exceptions, are limited to vacation periods. The beneficial effects of this policy are far-reaching in that it has eliminated from the minds of the employees ideas resulting from a constant desire to change and has relieved the officers in charge from the necessity of breaking in new people at any and all times.

As a corollary of this plan the old system of granting promotions at the beginning of each fiscal year has been done away with, and now promotion is made whenever it is clearly shown that employees are deserving of promotion. This idea is being carefully impressed on the field service, and when thoroughly appreciated it undoubtedly will have the effect of improving the personnel by inculcating greater interest in the work.

There has been marked improvement in the method of handling the employee personnel. Heretofore the record of employees has been kept in large and cumbersome record books. These books have been entirely eliminated and a complete card system installed. This has meant an immense saving of clerical labor and will make the records much more accessible. It also does away with the annual transfer of the entire employee force from one book to another at the beginning of each fiscal year.

A new system of reporting the efficiency of employees has been installed. Instead of continuing the former arbitrary method of rating each employee, the superintendent or other officer in charge gives briefly, in a few strong descriptive words, a clear statement of the employee's efficiency, ability, and industry. These are made on separate sheets and filed in the status record of the employee. Inspecting officers are also required from time to time to make similar reports on employees who have come under their observation. These records are placed in the same file. In this way a complete descriptive history of each employee is immediately available when the question of promotion or transfer or change in position or salary comes up.

The Civil Service Commission has given hearty cooperation to the service in securing high-grade employees for appointment to the field force. The limitations of that service and its difference from the departmental service are given consideration and an earnest effort has been made to provide eligible lists commensurate with practical needs. The service recognizes the value of the merit system as applied to its work. The commission, on the other hand, also recognizes the peculiar difficulties of the work and the liberal treatment required in order to procure proper human material for the work of elevating the Indian and conserving his property.

The rapid development of irrigation and allotment work in the field has clearly shown the necessity for a modification of the usual civil-service procedure in making appointments. This fact has been recognized by the commission and a satisfactory arrangement has been made by appointing local boards of examiners at various convenient points throughout the West. These boards conduct examinations and maintain registers of eligibles for certain classes of positions, and appointing officers resort to them for material from which to select their employees. These local registers are utilized for the large bulk of appointments to positions not requiring clerical or high-grade technical knowledge or experience. The results of this method have been satisfactory and it will undoubtedly be further developed in the future.

The merit system in and of itself can never provide a force of high efficiency. The question of compensation is vital. The compensation must be adequate for the work performed and at least equal to that which the same grade of work commands in the ordinary business world. Without this relative condition of salaries, it is not possible for the Indian Service, with its hardships, its isolations, and its many disagreeable features, to get the best material for its appointments.

The appointment of a special disbursing agent at Union Agency deserves special attention because the plan is to be extended to other large fields of the Indian Service as opportunity may arise. For

years the superintendent at Union Agency has been each year financially responsible for five or six million dollars, in the proper care of which only the qualities of accuracy and integrity are required. The disbursement of these funds necessarily took a large part of the time which he, as the executive officer of the Indian Service among the Five Civilized Tribes should have devoted to the broad questions of general management, to decisions of disputed cases, and to careful watching of the enormous business and human interests of these Indians.

The mere manual labor of signing the immense number of checks and petty details connected with them took nearly half of his time. The special disbursing agent appointed this year will free the superintendent of this unnecessary waste of time and energy in the future. This special agent is bonded in a sufficient amount to care for the fiscal affairs of not only the Union Agency but of the educational work which has been heretofore managed by a separate officer. The superintendent in charge of the agency, as well as the supervising officials in care of education, have been relieved of a tremendous burden of detail and may now be, in fact as well as in name, the executive and administrative officers representing the Government in old Indian Territory.

FARMING.

The Indian Service realizes that instruction in farming is an essential basic part of its present educational policy and is, therefore, making use of every possible resource in order to promote farming among the Indians. Farmers are employed on reservations to teach the Indians how to farm according to the most improved modern methods. Experimental farms have been established in different sections to discover the best crops for the Indians of the district, to improve the quality of the seed, and raise the standard of the product. The cooperation of the Department of Agriculture and the agricultural colleges and experiment stations of the various States has been solicited, and valuable assistance and advice have been procured from those sources in finding what class of cereals, plants, fruits, berries, and other industries carried on by farmers were best adapted to the various Indian reservations. Instruction in agriculture is receiving new emphasis in the schools. The Indians are being encouraged to hold agricultural fairs where their stock and produce are exhibited. The standard of Indian live stock is being raised by cooperation with the Bureau of Animal Industry.

A special examination was held by the Civil Service Commission on March 30, 1910, for the purpose of procuring candidates for appointment as expert farmer, and expert farmers were appointed at the following reservations: Blackfeet, Colville, Fort Apache, Fort

Berthold, Fort Totten, Fort Yuma, Flathead, Klamath, Lac du Flambeau, Mescalero, Nevada, Tongue River, Sac and Fox of Oklahoma, Shoshone, Southern Ute, Uintah, Warm Springs, White Earth, Winnebago, and Yakima. A horticulturist was appointed at the San Juan Agency.

As an example of the sort of result that may be looked for from the experimental farms, I wish to call attention to the work of the experimental farm at Sacaton, Ariz., in raising Egyptian cotton. As a result of two years' experiment sixteen bales of a fine grade of Egyptian cotton, weighing 8,886 pounds, were raised and shipped to New York markets. A small part of this cotton was raised at the Phoenix School. Reliable tests showed that this cotton was very much stronger than ordinary southern cotton and averaged from one-eighth to one-fourth of an inch longer, which made it especially valuable for thread and fine qualities of cotton weaves. This cotton was sold for 31 cents a pound. This price strikingly contrasts with the ruling price for southern short staple cotton, which is 12 to 15 cents per pound. This cotton was raised through cooperative action between the Bureau of Plant Industry of the Agricultural Department and this office. The money and years of effort expended by that bureau in testing Egyptian cotton in Arizona culminated in the production of this quantity of a high grade of cotton. A great opportunity is open for the superintendent of the Pima Reservation on which this cotton was grown, to stimulate the Indians there to successfully raise this high-grade cotton.

The importance of the agricultural fair as a means of stimulating interest in farming among the Indians has been convincingly demonstrated by its success among the Crows. Last year the superintendents of the Tongue River, Fort Belknap, and Fort Peck reservations in Montana, and the superintendent of the Fort Totten Reservation in North Dakota, attended the Crow fair, and reported that such fairs are a benefit on those reservations that have opportunities for growing field crops. The fair promotes healthy rivalry among Indians and furnishes a rational basis for meeting together, which ought eventually to take the place of the indiscriminate gatherings of Indians, which are usually productive of considerable harm. Fairs were held last year at the following reservations: Crow, Capitan Grande, Cheyenne and Arapahoe, La Jolla, Pine Ridge, San Juan, and Southern Ute. Officers in charge of various reservations are being encouraged to hold these agricultural fairs.

On several reservations conspicuous progress in farming has been made during the year.

On the Fort Peck Reservation about 50 per cent of the male adult Indians are cultivating their farms, and there is approximately 3,000 acres under cultivation, an increase of about 50 per cent over last

year. The largest area cultivated by any one Indian is 200 acres. Oats, potatoes, flax, wheat, and corn are the principal crops grown. The market is good. An elevator is now being constructed at Poplar to handle the grain harvested in this vicinity. About 75 per cent of the male adult Indians on this reservation raise stock, ranging from 5 to 100 head each. They have a few more cattle than horses, aggregating about 9,000 head.

On the Sisseton Reservation there are about 220 families engaged in farming, an increase of 25 per cent over the number farming last year. There are about 17,325 acres under cultivation, the best Indian farmers cultivating from 80 to 390 acres. Many of their farms are in excellent condition. Nearly all the Indian farmers have a few head of cattle; during the last two years eight Indians began raising horses. Two hundred and seventy families have distributed among them about 1,300 head of cattle and 2,500 head of horses; the number of horses on the reservation has increased about 50 per cent, and of cattle about 25 per cent over the previous two years.

The Nez Perce Reservation, in Idaho, has 128,000 acres of allotted land under cultivation. Considerable interest has been manifested by the Indians in the planting of fruit trees and plants. One Indian procured from the superintendent 150 fruit trees and planted all of them in good shape. Marketing facilities are excellent.

On the Yakima Reservation, in Washington, there are 60,000 acres under cultivation. Some white lessees of the reservation have established what might properly be called "model farms," and the example set by them is having a noticeable effect upon the Indians. They are imbuing the progressive spirit, and are making rapid advancement.

At the Winnebago Agency wonderful progress has been made. Last year the Winnebagos cultivated only about 3,000 acres of allotted land and it was done rather indifferently. During the present year they have under cultivation more than 8,000 acres, mostly planted in corn, and it is reported to be fully as well cared for as the crop of the average white man. About 75 per cent of the able-bodied adults on this reservation are engaged in farming. Thirty-six of them are farming during the present season for practically the first time. The largest farm cultivated by a single Winnebago Indian contains 200 acres, but many members of the tribe care for farms of 80 or more acres.

Complaint of the prevalence of glanders upon the Indian reservations of North Dakota, South Dakota, Minnesota, Montana, and Wyoming was made during the spring of this year. The state authorities claimed that the disease was being spread by the sale and shipment of Indian horses. The Bureau of Animal Industry, upon request, agreed to make a thorough inspection of all Indian horses in

these States, and to take such action as was deemed necessary to stamp out the disease. This work is in progress at the present time, and very few diseased animals have been found, but all such have been immediately killed and the carcasses burned.

EMPLOYMENT.

The work of the Indian employment bureau has continued to progress. The headquarters of the supervisor of Indian employment are in Denver, Colo. He has four assistant supervisors, at various points in the Indian country, and others will be provided as fast as conditions warrant and funds are available.

One of the most interesting developments of the employment work during the year has been the offer of two large railway systems to provide opportunities for school boys who are learning trades or who are mechanically inclined, and for returned students who have received training in trades. This cooperation should give great impetus to industrial education among the Indians. It will mean that good employment can be found for hundreds of Indian boys and young men at fair wages in the shops of these railroads; at the same time they will have an opportunity to thoroughly finish the learning of their trades and make themselves competent, skilled workmen. From one school alone, at its close this year, 39 boys with trades partly learned were sent to these shops.

The supervisor of employment has in other ways cooperated with the work of the schools. Particular attention has been given to the enlargement of the outing systems of the various reservation and non-reservation boarding schools. Special efforts are being made to get in communication with returned students. Last year the supervisor wrote personal letters to over 600 returned students in which he offered the services of the employment bureau in securing suitable work.

I consider these developments to be of great significance. The systematic connecting of the industrial education of the schools with the real work of the world will mean the dawning of a new day in Indian education, and, from the human side, the bridging over of that critical period in a boy's life when he leaves school and starts to work is a service of far-reaching importance. Sympathetic direction during those two or three critical years will mean the economic and moral salvation of many boys and young men.

A large number of Indians have been employed, as usual, on irrigation works, railway construction, and other projects.

The "Two Medicine" irrigation project on the Blackfeet Reservation, Mont., is furnishing work for a large number of Indians. The overseer in charge reports \$53,805.94 earned by the Indians and their

teams during the last season. On May 14, 1910, 133 teams with Indian drivers and other Indian laborers without teams were at work on the project. The drivers earned from \$3.50 to \$4 a day, and the laborers from \$2.24 to \$2.40 per day.

The Ute Indians on the Uintah irrigation project earned \$16,815.56 last season. This showed considerable progress among these Indians, inasmuch as during the preceding year they earned only about \$3,356.48. For the month of April, 1910, these Indians earned \$4,992.89 on irrigation work in addition to a very satisfactory amount in mining and other projects. The total earnings of the Ute Indians on various projects this year were \$26,476.82.

The district about Phoenix, Ariz., furnishes employment for a large number of Indians in ditch and railroad construction, mining, and general farm work. The monthly reports of the overseer for the past year shows payment to the Indians as follows: October, \$14,579.65; November, \$14,966; December, \$16,078.12; January, \$14,699; March, \$21,967.25; April, \$20,694.94; total, \$102,714.96. The report for March, 1910, represents the earnings of 593 Indians. Total earnings for the year, \$189,733.94.

The number of Indians employed in logging and milling operations on the Menominee Reservation in Wisconsin averaged 236 per month for the year; their total earnings for that period amounted to \$70,179.68.

The sugar-beet district about Rocky Ford, Colo., furnished employment for a large number of Indians, most of whom were boys from the Indian schools in the Southwest. The amount earned by these Indians during the past season was \$19,868.80. This work is of great educational value to the boys, as this district is one of the best irrigated agricultural districts in the country, and all the boys come from irrigable sections of the country and from reservations having little or no opportunities of this kind; thus their work will be of the greatest value to them when they ultimately settle at home.

The assistant supervisor at Rocky Ford has his work well organized. He is in close touch with his entire district by telephone, and is equipped to take care of any that are sick. He is in a position to provide employment for Indians, especially returned students from all reservations within a reasonable distance from Rocky Ford. Arrangements have been made to place a number of boys with good farmers where they can work during the winter and attend public schools.

HEALTH.

The Indian Service in its health work is not aiming merely to more effectively care for and cure those that are sick. The reduction of the death rate is not its primary interest. It is working

rather to increase the vitality of the Indian race and to establish for it a new standard of physical well-being. The work is being scientifically developed along lines which have already been successfully tried out by modern preventive medicine. The principal features of this work as it is now organized are: (1) An intensive attack upon the two diseases that most seriously menace the health of the Indians—trachoma and tuberculosis; (2) preventive work on a large scale, by means of popular education along health lines and more effective sanitary inspection; (3) increased attention to the physical welfare of the children in the schools, so that the physical stamina of the coming generation may be conserved and increased.

Special attention has been given to the treatment of trachoma during the year. This was made possible by a special appropriation of \$12,000 made by Congress in June, 1909. A hospital was opened at the Phoenix school and placed in charge of one of the best eye specialists in that section of the country. More than 700 cases were admitted to this hospital for operative treatment during the year. In addition to this, two expert physicians and a special nurse have been placed in the field to treat those having the disease. They have visited the various schools and agencies in the Southwest, where the disease is especially prevalent, and after examining the Indians have started appropriate treatment, which has been continued by the local physicians. A third special physician entered on duty in the Northwest on June 1 of this year. The situation is still very serious. The regular physicians have examined approximately 20,000 Indians, and found about 20 per cent of them affected with the disease.

A special appropriation of \$40,000 for the relief of distress and the prevention of disease among the Indians will make it possible to vigorously push this fight against trachoma and also to increase the facilities for preventing the spread of tuberculosis. Satisfactory results in the treatment of tuberculosis are being obtained in sanatoria. Special camps and sanatoria have been established at Colville, Wash.; Fort Lapwai, Idaho; Chemawa, Oreg.; Phoenix and Fort Apache, Ariz.; and Laguna, N. Mex. The total number of patients admitted for treatment was 117. Of this number 87 showed marked improvement, some of them being completely recovered. Nineteen were not improved, and 14 died. The sanatoria are being enlarged, and new ones built just as rapidly as conditions will permit.

Systematic efforts are being made to educate the Indians in the schools and on the reservations as to the best methods of treating and preventing the spread of tuberculosis, trachoma, and other infectious and contagious diseases. A manual on tuberculosis, its cause, prevention, and treatment has been published by the medical supervisor and distributed throughout the service. A series of illustrated lectures for a traveling health exhibit are being prepared. A special physician and photographer are in the field securing photographs

from which these stereopticon slides and moving pictures can be made. This exhibit will be sent to the different schools and reservations. One of the most important results of this educational work will be that it will instruct the employees at the schools and agencies of the Indian Service as to the methods of preventing disease, and in this way unite the entire service in the health campaign.

Increased attention is being given to sanitary inspection. It is planned, wherever possible, to have a house-to-house inspection by a physician of all Indian homes on a reservation. This will make it possible not only to accurately learn the extent of disease and provide for proper treatment, but it will also make it possible for instruction to be given the Indians as to how they may improve the sanitary conditions of their homes, and thereby prevent disease in future. A beginning in this work was made last year on the White Earth Reservation, where the need was pressing. Two special physicians were authorized to carry on the work. More than 200 homes were visited and 1,266 persons examined. Of this number 690 had trachoma and 164 tuberculosis in its various forms. Only 25 per cent of the homes visited were considered sanitary. This work will be vigorously followed up during the present year until the whole reservation is covered. Arrangements have been made with the Bureau of Animal Industry to make an inspection and test for tuberculosis of all the dairy herds in the service. The sanitary inspection of the equipment and methods for the production and handling of the milk supply is included. This work is now in progress.

The medical supervisor is having the schools in the service systematically inspected with special attention to ventilation, disinfection, and personal hygiene. He has recommended, where practicable, the construction of screened porches for sleeping quarters for pupils whose physical condition is not up to the standard. All pupils presented for admission to a boarding school are given a thorough physical examination. If a child is found to be affected with any disease that would probably be made worse by attending school or that would endanger the health of the other pupils he is not admitted. Three of the reservations where the greater number of day schools are located, namely, Cheyenne River, Pine Ridge, and Rosebud, have a day-school physician, who makes regular visits to each of the day schools under his supervision to look after the health of the pupils and to see that proper hygienic and sanitary conditions are maintained in the schools.

CANTON ASYLUM.

Relief is now in sight for the overcrowded conditions at the Canton Asylum. There are 102 insane Indians in the United States. Sixty of these are in the Asylum for Insane Indians at Canton, 24 are being cared for in state asylums, and 18 are receiving no treatment at

all. An appropriation of \$25,000 made at the last session of Congress will permit of an addition which will provide room for all those in need of immediate care and treatment, including the transfer of those from the state institutions where formal requests have been made. The office will also be able to provide wards for the special treatment of cases of acute insanity and quarters for patients suffering from tuberculosis.

SUPPRESSION OF LIQUOR TRAFFIC.

An appropriation of \$60,000 was available for the suppression of the liquor traffic among the Indians during the fiscal year. The original appropriation of \$50,000 was increased by an additional \$10,000 for the fiscal year 1911, which was made immediately available. As a result of this increased appropriation unusually extensive operations were conducted covering practically every State of the Union in which Indians resided. During the year 1,657 new cases were placed on the dockets, 1,657 arrests were made, 747 indictments secured, and 1,055 convictions obtained. Cases against 280 persons were dismissed and 23 persons were acquitted.

Special attention has been given to the sale of liquor to Indians in Minnesota. In August the superintendent of the White Earth Reservation served formal notice on all the saloon keepers in the villages of the White Earth Reservation to close their places within thirty days. After the thirty days had expired, Chief Special Officer Johnson and his deputies closed the saloons in Mahnomen, Waukan, and Calloway and destroyed about 1,300 gallons of whisky, for which he and the nine deputies were imprisoned by the local authorities, but were released on a writ of habeas corpus by the United States court.

On September 17 the chief special officer sent out a circular calling attention to article 7 of the treaty with the Chippewa Indians of February 22, 1855, saying that thirty days after date the provisions of that section would be enforced within that part of Cass County lying above township 138. This closed about 25 saloons. On November 25, 1909, and January 15 and April 8, 1910, more circulars were issued extending the closed territory, to which the provisions of the treaty of February 22, 1855, and October 2, 1863, would apply. The following counties or parts of counties in Minnesota were affected: Norman, Mahnomen, Clearwater, Beltrami, Itasca, Crow Wing, Cass, Wadena, Ottertail, Clay, Becker, Hubbard, Polk, and Red Lake.

About 100 saloons have been closed in this section, many gallons of whisky destroyed, and many convictions secured. This vigorous action has had great deterrent effect.

The campaign has been markedly successful in arousing interest in the Government's efforts to protect its wards from the introduction and sale of liquor. The interest was manifested in many commendatory letters from local persons and others interested in the welfare of the Indians. On the other hand, vigorous opposition has been encountered from special interests and others who feel that the Federal Government should not interfere in such matters. This opposition has crystallized into appeals to the President and other prominent officers of the Government.

One of the most hopeful features of this work is the increasing co-operation of the state officials in protecting the Indians from the influence of liquor. In some States the officials have employed men to discover those selling liquor to Indians. In others they have agreed not to license any additional saloons, and in some States the county officials have passed ordinances prohibiting the sale of liquor to Indians.

The superintendents of the various reservations and schools are realizing the importance of this work and many cases have been secured by them independent of the operations of the chief special officer. The superintendents in each State have been given copies of the state laws on the sale of liquor to the Indians in order that they may more intelligently work on local cases.

It is gratifying to find in a few cases that the Indians themselves have circulated petitions addressed to the home city or town councils asking that saloon licenses be revoked and the places closed.

An act was passed by Congress during the year, amending the act of May 29, 1908, for the sale and disposition of a part of the Standing Rock and Cheyenne River reservations and provided that for a period of twenty-five years the lands allotted, retained and reserved, as well as the surplus lands sold, etc., shall be subject to all the laws of the United States prohibiting the introduction of intoxicants into the Indian country.

SCHOOLS.

An improvement of signal importance has been made in the administration of the schools of the service by providing for an adequate system of supervision. The whole territory has been divided into six supervisory districts with a supervisor in charge of each. The districts are as follows: First district, New Mexico, Colorado, Utah, and Wyoming; second district, Arizona, California, and Nevada; third district, Iowa, Nebraska, and South Dakota; fourth district, Oregon, Washington, Idaho, and Montana; fifth district, North Dakota, Minnesota, Wisconsin, Michigan, and other Eastern States in which Indian schools are located; sixth district, Kansas and Oklahoma.

A chief supervisor of schools has been appointed to have general direction of all the supervisors. The work of these supervisors is not to be inspection, they are to devote their energies to constructive work. By positive suggestions based upon a sympathetic understanding of each teacher's problems, they should inspire the entire school service to a new standard of efficiency. I also look for important results in the way of bringing better order out of the present unorganized condition of the school system.

A comprehensive survey of the condition of the schools throughout the service was made last year. Out of a school population of about 40,000 (this does not include the Five Civilized Tribes), there are in school 29,185, leaving out of school 10,815. Including public schools within reach of Indian children, there are accommodations for 6,344 being unused, thus leaving 4,471 for whom there would appear to be no school accommodations. The chief supervisor of schools is of the opinion, however, that with the exception of the Navajos and Apaches, all other Indian children can be well cared for in schools already in existence. With the exception of these tribes there will probably be no further need of new boarding schools.

A change was made during the past year in the basis of support of the nonreservation boarding schools which will do away with some serious evils of long standing. Hitherto the appropriation for the support of nonreservation schools has been based upon the number enrolled in the school. A per capita allowance of \$167 was granted each school for every pupil regularly enrolled. This compelled the superintendents to keep up their attendance or face a deficiency. Every child represented so much money for the maintenance of the school, and in many cases little regard was had for the welfare of the child. Many superintendents sent out agents into the different Indian reservations to canvass for pupils for their school. The activities of these agents upon reservations were often very pernicious. Congress in the Indian appropriation act of this year provides that all moneys appropriated for school purposes among the Indians shall be expended without restriction as to a per capita expenditure for the annual support and education of pupils. This will make it possible for the superintendents of the nonreservation schools to devote all their energies to the education of their pupils. The support of each school will be in accordance with the efficiency and earnestness with which it does its work.

An event that will have important influence upon the work of the schools was the conference of superintendents held in Washington in December, 1909. In order that the field employees might have an opportunity not only to discuss questions with each other, but also to become acquainted with the office force, I called about 35 reservation and nonreservation superintendents to meet in my office for a

conference. The conference was in session four days, and the report of its proceedings constitutes a contribution of great value to the general subject of Indian education, and more especially with regard to the problems of the nonreservation schools.

Progress is being made in the important work of more closely connecting the Indian schools with the public schools. The association of Indian children with white children in the public schools, wherever practicable, will be a definite means of promoting the assimilation of the Indians into American life. During the last year about 3,000 Indian pupils were enrolled in the public schools, a remarkable increase over previous years, most noted in California and Oklahoma. The office is willing to pay a per capita tuition equal to the amount apportioned by the State or county per pupil for all Indian pupils enrolled in the public schools whose parents are not taxpayers. Superintendents have readily seen the advantage to be gained by such an arrangement.

There has been a marked example of cooperation in school matters among the whites and Indians at Fort Lapwai, Idaho. An industrial high-school plant is maintained there by the State of Idaho and the Indian Office jointly. At the close of its first year there was an attendance of more than 225 pupils, of whom over one-half were Indians. This school has the cooperation and support of the best people in the community and the state school authorities. The State pays part of the expense and the Government bears the expense of the Indians, each race being afforded equal opportunities as to instruction. It is found that the association of the two races in the same schools is overcoming, in a great degree, the local prejudice of the whites against the Indian.

As the districts in which Indian reservations are situated become more thickly settled the distribution of public schools is going to be much more extensive, and the opportunities for the Indians to attend public schools will be greatly increased. This will make necessary various readjustments in the Indian school policy.

We have begun to prepare for these readjustments. During the last year we adopted the state or local courses of study for the Indian schools. In the manual for Indian schools recently issued the reasons for this action are given as follows:

In order to give definiteness and true direction to the policy of Indian education it seems highly desirable as a rule to make the course of study for each Indian school conform to the course of study adopted by the State or county in which it is situated. This will not only make it possible to increase the general efficiency of Indian schools, but it will show the Indian children that their schools are in all essential points the same as those for white children. They are already comparing their schools with those maintained by the States and it ought not to be true in any community that they suffer by this comparison.

This plan of making the courses of study in Indian schools conform to those in the States in which the schools are located will place the teachers in the Indian schools in closer touch with the teachers of the larger system of schools for white children, and will provide opportunities for the former to receive inspiration and help from the teachers of non-Indian schools. It will make the two school systems so nearly alike that Indian pupils may be easily transferred to white schools as has already been done in a large number of instances; it will also put the various Indian schools, particularly the day schools, in condition for future absorption into the state school systems, because of following the same course of study and to a considerable extent the same series of text-books.

We are planning to do more in the way of following up pupils after they leave the schools, in order that they may be helped and safe-guarded during the critical years in which they start to make their own way in the world. The transition to the reservation is many times rather violent for the pupil who has been carefully sheltered in the nonreservation boarding school from the temptations of the world. Sympathetic guidance for the boys and girls at this critical time is greatly needed. Mention has already been made in this report of the way in which the cooperation of some of the railroads with the employment bureau may help in this work. I am trying, however, to work out a plan whereby the responsibility of following up the students when they leave school will rest with the superintendents of the schools. The essential features of the plan are that the pupil, when he leaves the reservation, shall carry a letter from the superintendent to the superintendent of the non-reservation school, acquainting the latter with the essential facts in the life of the pupil, and indicating the conditions on the reservation to which he will return. The nonreservation superintendent will then have some guidance in providing for that pupil the kind of training that will best fit him for the conditions prevailing at home. When a pupil leaves school he will carry a letter to the superintendent of the reservation to which he returns, with directions that it be presented immediately upon his arrival. This will give the home superintendent a splendid opportunity to gather from the pupil an idea of his plans and prospects and to give the pupil wholesome advice. It will open the way for the superintendent to keep a fatherly eye on the boy until he gets well on his feet.

With a view to improving the instruction along industrial lines the chief supervisor of schools has prepared a series of bulletins for the teachers of the service, which will be issued during the coming year. They are as follows: (1) Farm and home mechanics; some things that every boy should know how to do, and hence should learn to do in school; (2) some things that girls ought to know how to do, and hence should learn how to do when in school; (3) outline lessons in housekeeping, including cooking, laundering, dairying, and nurs-

ing; (4) synopsis of the course in sewing; (5) social plays, games, marches, old-folk dances, and rhythmic movements for use in Indian schools.

These bulletins will be distributed only to teachers in the Indian schools. As it is thought that there may be a public demand for them, arrangements have been made for their sale by the superintendent of documents.

The reorganization of the tribal schools among the Five Civilized Tribes is now well under way. For many years there have been in existence about 36 tribal boarding academies among these Indians, originally established and conducted by the tribal authorities and maintained from the tribal funds. Pursuant to the act of April 26, 1906 (34 Stat., 137-140), these academies were taken charge of by the department and have been operated under contracts made with the superintendents of the respective institutions. Contracts were made also with various private and denominational schools, and public day schools were conducted under a dual system of control by which the department paid the salaries of the teacher for a part of the school year, the state or district authorities maintaining the school for the balance of the year. This system of conducting the various schools among the Five Civilized Tribes has proved unsatisfactory. During the early part of the year 1910 the department and the Indian Office determined to discontinue the old system, and in the future these schools will be operated directly under the supervision of the Indian Office and in substantially the same manner as all other Indian schools in the service. The tribal schools have in the past contributed materially to the advancement of the Five Civilized Tribes and will remain the chief reliance of those Indians, now numbering 36,000, whose lands are still restricted and who are not citizens of the State, with the privilege of attending the state schools.

The nomadic habits of the Navajo Indians make educational facilities for these people at the present time largely a question of boarding schools. Superintendents of the various Navajo reservations, without exception, report very few available day school sites. This arises from the fact that the principal industry among the Navajos is sheep raising. The range of the desert is such that in order to gain subsistence for their sheep a large grazing territory must be covered during the course of the year. Until such time as water can be developed for irrigation and families located in communities the matter of day schools in this part of the country is considered by Navajo superintendents as impracticable. This makes the educational question among the Navajos depend largely upon irrigation.

In order to furnish educational facilities for a number of Navajo children in any school it will probably be necessary to build a few more boarding-school plants, with a capacity of from 150 to 200 pupils. A careful study of this situation is now being made.

During the past year nonreservation schools at Fort Shaw, Mont., Chamberlain, S. Dak., Fort Lewis, Colo., and Morris, Minn., were discontinued. One new boarding-school plant at Chin Lee, N. Mex., was completed. Three day schools were discontinued during the year and 28 new day schools opened, giving a total increase of 25 day schools during the past year.

Some of the more important changes during the year were as follows:

The Rincon day school in California was discontinued, and the Indian children who formerly attended the school were placed in the public schools in that community.

A superintendency was established last year at Upperlake, Cal. It will include Ukiah, Potter Valley, and the Indians in and about these points.

A superintendency has been established at Roseburg, Oreg., to afford better protection to a large number of Indians not under the jurisdiction of the various superintendents in Oregon.

The location of the agency headquarters for the Coeur d'Alene Reservation in Idaho will be moved from Tekoa, Wash., to the reservation proper. A new site has been reserved for agency purposes on the reservation and arrangements have been made to transfer the headquarters as soon as new buildings can be constructed.

The San Xavier Mission day school was transferred to the Government during the year. The buildings were leased by the Government and the employees—three teachers and one housekeeper—listed on the civil service roll March 1, 1910.

The department changed the name of the Puyallup School to Cushman School at the request of the Tacoma Commercial Club and Senator Jones, of Washington, in honor of the late Francis W. Cushman, former Representative from Washington.

The Salt River Reservation has been separated from Pima Agency and placed under the jurisdiction of the Camp McDowell superintendent. The property and employees of the Salt River and Lehi day schools have been transferred to Camp McDowell. One large new day-school plant is contemplated at Salt River to accommodate the Camp McDowell Indians who took allotments at Salt River. The Red Moon boarding school at Hammon, Okla., has been discontinued and a day school established in its stead. It is purposed to transport pupils to and from the school daily if it is found that this is necessary and practicable.

Authority has been obtained to lease with the option of purchasing at \$10,000, at any time within the next five years, 62 acres of land and

landed improvements known as the Berger property, at San Xavier, Ariz. This will supply quarters for the agency employees with facilities for instructing the agency boys in farming, care of stock, etc.

The Arapaho Boarding School was sold during the year, in accordance with the act of May 29, 1908 (34 Stat., 444), and the amendment thereto of January 31, 1910, which provided for the sale of the school and the land, comprising about one section, in which the school buildings are situated. This sale has been made for the sum of \$73,800, of which \$25,000 has been paid in cash. Two schools have hitherto been conducted for the Cheyenne and Arapaho Indians near Darlington, Okla.; the Arapaho Boarding School, originally established in 1872, which has just been sold, and the Cheyenne Boarding School, established in 1880. The latter is a small plant quite insufficient to accommodate all the pupils formerly provided for at both places. The proceeds of the sale of the Arapaho school, however, are to be used for the enlargement and improvement of the Cheyenne Consolidated School. The work of building up a complete plant sufficient to provide for all the Indian children who look to this institution for their education has been commenced and will be pushed to completion as fast as funds for the purpose become available.

CONSTRUCTION.

This section has prepared the plans and supervised the construction of a great variety of buildings during the year. Particular attention has been given to the problem of introducing a uniform type of building for the service, which will, at the same time, be easily adapted to meet the varying needs of different localities. The prevailing type of building in the future will be a substantial one-story structure with good light and ventilation, characterized by an absence of plumbing in the basement, and with toilets and baths installed in a conveniently located annex.

A special feature of the work of this section has been the preparation for the service of a series of plans, specifications, and forms of contract suitable for the use of Indians who wish to erect simple dwellings, barns, etc. These plans will be a great help to the superintendents on many reservations who are striving to teach the Indians to use their surplus funds for the erection of buildings and the making of similar permanent improvements upon their property. A good variety of plans is presented, and they are sufficiently elementary for the Indians to obtain an instructive lesson in all the business connected with building operations.

PURCHASE SECTION.

Before the preparation of the usual proposals for supplies, contractors and other persons interested in bidding on Indian supplies were invited to submit suggestions for an improvement of the methods

of purchasing and of making specifications. Where practicable and for the best interests of the service their suggestions for changes in specifications were adopted, in order that the terms used might more closely conform to trade terms, and that the requirements of the service might be made more clear to bidders.

A change in date for the annual estimate from January 1 to November 1, which was made last year, has been a decided improvement. Preparations for the annual estimate and the contract lettings are now made sufficiently early in the year to allow the manufacture of articles and the delivery of supplies before the opening of the schools in the fall.

There has been considerable complaint from some dealers that the proposals for furnishing goods and supplies by the requirement of delivery in New York, Chicago, St. Louis, Omaha, or San Francisco precluded them from successful competition with other bidders. To remedy any seeming discrimination the proposals were changed so as to permit bidders to designate in their bid delivery at any other point than those named by them, the Government reserving the right to call for the delivery of such quantities at any of the points named by the bidder in case more than one point was specified in the bid. This change has in no way worked to the detriment of the Government, and seems to be satisfactory to the dealers.

SUPPLIES.

An important change in the method of buying coal was instituted during the year. Formerly bids for furnishing coal omitted all special conditions as to heat units, ash, etc., but this year the specifications required bidders to state clearly the commercial names of the coal offered, the location of the mine or mines, and to guarantee the per cent of "ash" and "dry coal" and "British thermal units" as received. As a result of this change only 43 bids were received this year, as against 154 bids received the year before, and a number of the 43 bids received failed to comply with the terms of the specifications, necessitating their rejection. Wherever it was found impracticable to make awards by reason of the failure of the dealers to submit bids or comply with the terms of the specifications, fuel will be furnished under local contracts according to the old method.

Although the practical value of this new system has been thoroughly demonstrated in other branches of the Government and in large corporations and municipalities, its introduction into the Indian Service is experimental. The theory is correct, and if properly employed can be made to work in the service. While the first cost per ton may exceed that under the old system, yet its absolute fairness to the seller and the buyer, in securing the best results from a given expenditure of money, makes it worthy of careful trial. To do

this it will be necessary to determine what fuels are best adapted to the plant equipment of each school, and also to educate the coal dealers themselves as to the quality of the coal which they have to offer.

The technologic branch of the United States Geological Survey has had large experience in the testing of coal for its heat values, and has extended hearty cooperation to the Indian Office in the preliminary changes incident to the new system. The Bureau of Mines, which has taken over the work of the technologic branch, will make all necessary analyses and tests required for thoroughly determining the practicability of the plan.

IRRIGATION

There are millions of acres of irrigable lands in Indian reservations. Thus far, about 160,000 acres have been irrigated; of this number 118,640 acres have been irrigated by Indians and 42,080 by white lessees and purchasers.

The act of June 25, 1910, has bearings of great consequence upon the irrigation of Indian lands. This act safeguards the water interests of Indians on unallotted lands that are opened before an irrigation project can be constructed, and it also makes reservoir and water-power sites on lands already allotted fully available for irrigation purposes.

The act provides that if any irrigation project prior to the opening of any Indian reservation containing power for reservoir sites, be authorized, the Secretary of the Interior may, in his discretion, reserve such sites pending further legislation by Congress for their disposition. The act also provides for the cancellation of Indian allotments valuable for reservoir or water-power sites; the Indian allottee, of course, being protected by the requirement that he shall receive a proper payment for his improvements and lieu allotment of land of equal value within the irrigated area created by the reservoir.

The total appropriations for irrigation purposes for the past year amounted to \$875,730, of which \$325,000 was by act of March 3, 1909, made immediately available.

Work on the various reservations has been carried on as fast as funds available and the legal difficulties would permit, as is shown in the following summary of the work:

ARIZONA.

Gila River Reservation.—The hydro-electric pumping stations are in the course of construction. The initial plant is now in successful operation and giving most satisfactory results. Other stations will be completed in the near future. This work is being constructed by

the Reclamation Service. The cost of this project was \$123,075.71 for the year.

Navajo Reservation.—At Wheatfields Superintendent of Irrigation Robinson completed work on a small storage reservoir. The sum of \$534 was expended on this project during the year.

At Tuba the sum of \$6,969.35 was expended in the construction of a loose rock diversion dam, a concrete head gate, and about 1,800 feet of new canal. The new work diverts water to the agency farm and to the lands farmed by the Navajos, who have placed 150 acres under cultivation since construction started.

Four 12-inch wells have been driven to bed rock at Leupp for the benefit of the school and for determining the feasibility of obtaining water for irrigation. The total cost was \$3,904.66.

CALIFORNIA (MISSION INDIANS).

During the year work was prosecuted at Campo, Pechanga, Morongo, San Manuel, Soboba, and Cabazon reservations; also in sec. 30, T. 5 S., R. 7 E., San Bernardino meridian, the total expenditure being \$25,547.99, of which amount the sum of \$6,421.21 was paid for Indian labor.

COLORADO.

Southern Ute (allotted).—Surveys have been made for continuing construction work, and some little construction has been done during the year. Expenditures for the surveys and construction amount to \$1,780.95.

IDAHO.

Fort Hall project.—A total of \$197,583.88 was expended on the construction of the various features of this project, which are as follows: Extension and enlargement of the upper canal, laterals and minor concrete structures, reinforced concrete siphon, concrete head gates, and the Blackfoot dam. The amount paid for Indian labor during the year was \$9,316.08.

MONTANA.

Crow Reservation.—The sum of \$51,638.85 was expended on this project during the year, \$15,745.11 of which was paid for maintenance. The amount paid for Indian labor and teams was \$27,480.13. The chief new work performed was the extension of the agency canal and the construction of laterals under the Two Leggins and Big Horn canals. The irrigable land now under the various canals is estimated at 69,340 acres, of which 27,417 acres are irrigated. A large percentage of the land irrigated is for the purpose of native hay only.

Fort Belknap Reservation.—The work on this reservation during the year was the enlargement, extension, improvements and maintenance of the Milk River Canal System. The total cost for the year was \$25,432.65, of which Indians received for labor and teams \$17,323.22. The number of acres irrigated on the project is estimated at 16,000.

Tongue River project.—The work on this project was concentrated on the completion of the first 7 miles of the main canal, the lateral system, and structures under it. The amount expended during the year was \$30,217.23, of which \$8,011.72 was paid for Indian labor and teams. The cost of this project has been high owing to its isolated location and character of labor, unfavorable topographic conditions, and the fact that the canal and all structures are constructed with a capacity sufficient to irrigate the entire contemplated project. The number of irrigable acres under the canal is 896. Thirty-nine Cheyenne Indians have been given 20-acre tentative allotments. This is the first experience of Cheyennes in farming, and they have done remarkably well, raising corn, potatoes, beets, cabbage, squash, and turnips. The project can ultimately irrigate 6,000 acres of land.

Blackfeet project.—This project is being constructed by the Reclamation Service. Expenditures for the fiscal year 1910 amount to \$123,212.02.

Flathead project.—On this project \$174,318.53 was expended by the Reclamation Service during the year.

Fort Peck.—This project is also being constructed by the Reclamation Service. The expenditures for the year were \$36,235.25.

NEVADA.

Walker River project.—During the year the work consisted mainly in the extension of the main canal No. 2, and the construction of the requisite lateral system. This system as constructed will irrigate an area of 4,199 acres. The cost of the work during the year was \$15,663.27, of which sum the Indians received \$8,918.34.

Fort McDermitt Reservation.—Some minor work was performed at this point in the enlargement and the extension of two canals constructed some years ago. The total cost for the year was \$1,218.95, which was chiefly paid to the Indians.

NEW MEXICO.

Jicarilla and Apache reservations.—Surveys were made and plans prepared for the construction of ditches and a siphon line. Six hundred and ninety-two dollars and twenty cents was expended on the surveys and some little construction.

Navajo Reservation.—A small project at a point known as Seven Lakes was practically completed at a cost of \$312.36.

San Juan project.—On the construction of the Hogback Canal \$20,124.10 was expended, which, when completed, will irrigate approximately 3,900 acres.

Zuni Reservation.—During the year the sum of \$45,994.51 was expended for maintenance, construction, and repairs to the damaged dam, of which \$17,999.22 was paid for Indian labor and teams.

UTAH.

Uintah project.—The cost of the Uintah project for the year was \$143,991.86, out of which \$16,349.57 was paid for Indian labor and teams. It is estimated that 86,000 acres can be irrigated by the project as constructed. Approximately 11,000 acres of the Indian lands are now being irrigated.

WASHINGTON.

Yakima Reservation (irrigation).—The sum of \$22,853.13 is the aggregate of the distributed costs on this reservation for the year, of which \$6,691.71 was paid to the Indians for labor and teams. The total area of irrigated lands is 37,483 acres.

Yakima Reservation (drainage).—Several thousands of acres of land are being ruined by the rise of the water plane, due to the irrigation of the lands above, and a drainage project is being inaugurated for the protection of this land. During the year \$1,425.87 was expended on surveys for the various drains.

WYOMING.

Wind River Reservation.—The chief work on this reservation has been the enlargement and extension of the old canal, and the construction of 75 concrete and timber structures at a total cost of \$82,520.76, of which the Indians were paid \$35,401.33 for labor and teams. It is estimated that 48,699 acres are irrigated by this system.

MISCELLANEOUS.

During the past year investigations and reports were made on the following projects: Sherman Institute, Capitan Grande, Mesa Grande, San Pasqual Valley, Pala, La Jolla, Campo, and Morongo reservations, in California; Gila Bend, Colorado River, and Navajo reservations, in Arizona; Zuni and San Juan, in New Mexico; Southern Ute, in Colorado; Pine Ridge, S. Dak.; and Pyramid Lake, Walker River, and Moapa, in Nevada.

FORESTRY.

The timber holdings of the Indians are of great value, having been estimated at thirty-six and one-half billion feet (board measure), with a value of \$73,000,000. Approximately five and one-half

billion feet of the timber, valued at \$12,000,000, are on allotted lands, and thirty-one billion feet, valued at \$61,000,000, on unallotted lands. The service means to protect and develop these holdings by modern methods and in line with the best thought and experience in forestry, and at the same time so to instruct the Indians in the practical use of their timbered lands that they may receive from them the greatest benefit possible. Under the plan of organization, a forestry section has been established in the Indian Office for the purpose of segregating all timber matters in one unit.

The plan of field organization includes a forester having a practical and technical knowledge of the subject, responsible to the Commissioner of Indian Affairs for all timber matters, and a sufficient force of trained and experienced assistants to insure a management of the forests which shall be sound in theory and economically profitable.

At the present time the timber on all reservations is under the jurisdiction of the superintendents, who manage the forest on their respective reservations with the advice of special forestry experts.

A plan has been instituted for determining the amount of timber on each reservation. Statistics are being gathered not only relative to the amount and value of the timber, but studies are being made of the nature of the timber and the conditions prevailing on the several reservations, with a view to furnishing reports which will form a basis for the intelligent control and development of each forest.

Much attention is being given to planning adequate protection for this wealth of timber. Patrol districts have been arranged for forest guards, and during the dry period of the past year 109 forest guards were employed on 42 reservations in 15 different States. Telephone lines have been constructed on a number of reservations with convenient stations within the several patrol districts, so that the superintendent can receive prompt notification of fires. The total amount expended in the erection of telephone lines, cabins, and corrals is approximately \$40,000. A system of fire reports has been instituted, by which the superintendent may advise the office immediately of the estimated amount of damage of every fire and the cost of extinguishing it. Indians are employed as forest guards wherever such employment is practicable, and the regular Indian police force is utilized for forest protection.

The forestry work of the office will be materially helped by the legislation of the past year. The act of June 25, 1910 (36 Stat., 855), so amended the penal laws of the United States that it became a serious offense to unlawfully cut or wantonly injure timber on Indian reservations, as well as to set a fire on Indian reservation forests without exercising due care to extinguish the same. This act also authorizes the Secretary of the Interior under such regulations

as he may prescribe to sell the mature living timber, as well as dead and down timber, on the unallotted lands of any Indian reservation, except those within the States of Minnesota and Wisconsin, and upon allotments of Indians held under trust or other patents containing restrictions upon alienation. This general provision, however, will not supersede antecedent special acts in conflict therewith. Heretofore the office has had general authority to sell for the Indians dead and down timber only, except where timber was cut from Indian allotments for the purpose of clearing the land for agricultural use.

Under the new law the forest work on Indian reservations can ultimately be made self-supporting and ample funds obtained to develop the forests to their greatest productivity.

The principal logging operations upon Indian reservations during the past year were as follows:

Bad River Reservation.—Ten new contracts were entered into with the J. S. Stearns Lumber Company, authorized contractors, by allottees of this reservation; 62,407,735 feet of timber were cut from allotted lands, and 23,520,735 feet from unallotted lands, a total of 85,928,470 feet, valued at \$607,066.52.

Lac Courte Oreille Reservation.—Thirty-two contracts were approved with Signor, Crisler & Co., the authorized contractors, by allottees of this reservation; 7,331,875 feet of timber were cut during the year, valued at \$22,484.57. The following is a statement of the funds derived from the sale of timber, on June 30, 1910:

Balance due from contractor, 1909.....	\$3, 163. 20
Accrued from sale of timber, 1910.....	22, 484. 57
Total	25, 647. 77
Deposited in bank to credit of individual Indians.....	20, 974. 73
Balance due from contractor, June 30, 1910.....	4, 733. 04

Fond du Lac Reservation.—Martin Brothers, the official contractors on the Fond du Lac Reservation, with the approval of the Secretary of the Interior, transferred their contracts to William O'Brien. One hundred and eighty-four contracts were made with the Indians of this reservation during the year. There were 9,063,640 feet of timber cut and removed, valued at \$92,649.85.

Leech Lake Reservation.—One new contract for sale of timber was made during the year, 21 contracts were completed. Collections were made during the year for 5 timber trespasses. There is now pending a settlement with the Minneapolis, St. Paul and Sault Ste. Marie Railroad Company for timber cut on their right-of-way through 17 Indian allotments.

There were 2,298,460 feet of timber, 121 cords of mixed wood, 152 cords of Jack pine, 1,277 cedar poles cut during the year. The sum of \$12,203.74 was collected and deposited to the credit of the individual Indians. The total amount of proceeds from sale of timber on

deposit to the credit of individual Indians on June 30, 1910, was \$82,124.20.

Ceded Chippewa Indian lands.—During the year there were cut from the ceded Chippewa lands in Minnesota 87,522,240 feet of timber, 321½ cords of wood, and 1,561 posts and poles from which the sum of \$524,414 was received. The total amount of timber cut from these lands to July 1, 1910, was 822,722,613 feet, 446½ cords of wood, and 1,561 posts and poles valued at \$5,312,334.65. The total expense of operation to July 1, 1910, including salaries paid, was \$224,915.56, leaving a profit of \$5,087,419.69.

Menominee.—During the period November 1, 1909, to June 30, 1910, 17,786,308 feet of lumber, 621,050 lath, and 442,250 shingles were sawed at the mill on this reservation. There were shipped and used in construction work 12,068,512 feet of lumber, 1,580,900 lath, and 1,798,850 shingles, and at the close of the fiscal year there were on hand 22,178,966 feet of lumber, 795,150 lath, and 574,750 shingles. From the sale of lumber, lath, shingles, and wood \$144,845.16 was realized, and \$6,782.70 from the sale of logs.

The cost of the operations from November 1, 1909, to the close of the fiscal year was \$286,004.90; of this amount \$44,569.88 was earned by Indians.

POPULATION.

The Government no longer looks upon its duty to the Indians as merely involving an honest accounting for its trusteeship of Indian lands and funds. It considers the trusteeship of this property as the means of bringing the Indian to a position of self-reliance and independence where he may be able to accept the opportunities and responsibilities of American citizenship.

In all questions relating to the management of Indian properties the problem of the Indian Office under the direction of the Department is to find that method or combination of methods which is not only transparently just and honorable, but which is at the same time educative and capable of inspiring the Indian to greater personal effort. Important progress is being made in this direction. A case in point is the commutation of annuities. The perpetual annuities provided for in the treaties of various groups of Indians have been a great bar to the Indians' progress. These annuities have tended to keep the Indian in a condition of dependence, as they assured him of an income without labor or effort.

During the past year Congress by the act of April 4, 1910 (36 Stat., 269), commuted the annuities of the Sac and Fox Indians of Oklahoma and Iowa, and the Pottawatomies of Kansas and Wisconsin. An appropriation of \$200,758 was made for this purpose, and provision was made authorizing the Secretary of the Interior to withdraw this

money from the Treasury for payment to the Indians or to be expended for their benefit in such manner as he may deem proper. Agreements had previously been made with these Indians by special agents of the office, under authority of the act of Congress approved April 30, 1908. There are now five tribes receiving cash annuities under treaty stipulations, for which no principal fund has ever been appropriated and deposited in the Treasury. The amounts to be appropriated by Congress to provide for the commutation of the perpetual annuities of these tribes are as follows: Oneidas, Wisconsin, \$20,000; Pawnees, Oklahoma, \$600,000; Choctaws, \$192,000; Senecas of New York, \$120,000; Six Nations of New York, New York branch, \$70,000. Agreements for the commutation of these annuities have already been made with the Oneidas and Pawnees.

An attempt was made during the past year to make a payment to the Seneca Indians of New York, in accordance with a provision in the Indian appropriation act approved March 3, 1909 (35 Stat., 785), in which the Secretary of the Treasury was directed to place upon the books of the Treasury to the credit of the Seneca Indians of New York the sum of \$118,050, to bear interest at the rate of 5 per cent. This amount represents the value of certain stocks held in trust for the Indians and taken by the United States and canceled under authority of the act of June 27, 1846 (9 Stat., 35). Instructions were issued for the preparation of a roll for the payment, but owing to a protest by a faction of the tribe work on the roll was suspended. Further action in the distribution of the fund will not be taken by the office until it can definitely ascertain the views of the Indians on the subject. The matter is now in the hands of a departmental inspector for adjustment.

LAND.

The essential feature of the Government's great educational program for the Indians is the abolition of the old tribal relations and the treatment of every Indian as an individual. The basis of this individualization is the breaking up of tribal lands into allotments to the individuals of the tribe. This step is fundamental to the present Indian policy of the Government. Until their lands are allotted, the Government is merely marking time in dealing with any group of Indians.

An improvement of great importance has been made during the past year in the allotment work. I refer to the appointment of a supervisor of allotting agents. The most important feature of his work will be the introduction of a uniform system of allotment work on all reservations, subject only to such modifications as may be caused by local conditions. He will be of great help in solving special difficulties and complications that arise in the various districts.

This supervision of the work in the field will not only make for greater administrative efficiency, but the improvements introduced will also reduce the cost of the work.

The status of the work in field may be briefly summed up as follows:

Mogui, Ariz.—The act of March 1, 1907 (34 Stat., 1021), provides for allotment in such areas as the Secretary of the Interior might determine. On February 26, 1909, the department authorized allotments of 40 acres of agricultural and 320 acres of grazing land to each Indian on this reservation. Special Allotting Agent Matthew M. Murphy has, thus far, made tentative allotments to 2,630 Indians, covering 893,957 acres, at a cost of \$29,072.01, the approximate cost per allotment being \$11.05. It is estimated that there are 1,600 Indians yet to be allotted.

Navajo extension, Arizona and New Mexico.—Special Allotting Agent Joseph G. Kent has been engaged during the past year in making allotments within that part of the extension to the Navajo Reservation created by executive orders of November 9, 1907, and January 28, 1908, lying within New Mexico. Mr. Kent practically completed the allotment work within that part of the extension in New Mexico in May, 1910, and as soon as the allotments made by him to these Indians are approved, the surplus unallotted lands will be restored to the public domain as required by the act of May 29, 1908 (35 Stat., 457). Allotments within that part of the extension in Arizona have not been completed owing to the fact that all of the lands lying therein have not been surveyed by the General Land Office. It is expected that this work and the allotment work will be completed during the present fiscal year.

Round Valley, Cal.—During the past year Special Allotting Agent Horace J. Johnson completed the work of allotting the lands reserved for tribal purposes for the Round Valley Indians, under the provisions of the act of October 1, 1890 (26 Stat., 658). Allotments of approximately 50 acres each were made to 614 Indians, covering in the aggregate some 36,692.23 acres.

White Earth, Minn.—On December 20, 1909, a supplemental schedule of original allotments to 214 Indians on this reservation were approved by the department, and on the same date a schedule of 271 additional allotments were approved. The original allotments comprise 21,301.82 acres, and the additional allotments cover 16,812.84 acres. The original allotments were made under the act of January 14, 1889 (25 Stat., 642); the additional allotments being made under the provisions of the act of April 28, 1904 (33 Stat., 539). It is believed that the allotment work on this reservation will be completed during the present fiscal year, and when finished there will be but

little, if any, surplus land within the reservation other than that claimed by the State as swamp land.

Blackfeet, Mont.—The act of March 1, 1907 (34 Stat., 1035), authorizes allotments of 40 acres of irrigable land and 280 acres of grazing land, or, at the option of the allottee, 320 acres of grazing land to each Indian. Special Allotting Agent Charles E. Roblin has been at work on this reservation during the past year and has completed allotments covering 505,539.16 acres to approximately 1,300 Indians. Owing to the latitude of this reservation, it is impossible to do any field work during the winter months. To hasten the completion of the allotment work, Mr. Thralls W. Wheat, formerly surveyor under Special Allotting Agent Roblin, was appointed a special allotting agent to assist in the prosecution of the work during the summer season when field work is possible. It is believed that the work connected with allotments to these Indians will be completed before winter.

Fort Peck, Mont.—On September 26, 1909, Special Allotting Agent Fred C. Campbell took up the allotment work to Indians on the Fort Peck Reservation under the provisions of the act of May 30, 1908 (35 Stat., 558). This act authorizes allotments of 320 acres of grazing land, and in addition thereto, not to exceed 40 acres of irrigable land and not less than $2\frac{1}{2}$ nor more than 20 acres of timber land to each Indian; provision being made also for the disposal of the surplus lands after allotments have been completed. Up to July 1, 1910, Mr. Campbell had made allotments to approximately 1,000 Indians. As there are in the neighborhood of 2,000 Indians on this reservation entitled to allotments, it is not believed that the allotment work will be completed prior to the closing of the summer season of 1911.

Carson Sink, Nev.—During the past year allotments of 10 acres of irrigable land were approved to some 322 Indians within the Truckee-Carson irrigation project in Nevada. There remain about 1,500 acres under this project within the seven and one-quarter sections reserved for allotment purposes which it is expected will be allotted to the remaining Indians of the Paiute tribe during the present fiscal year.

Jicarilla, N. Mex.—The allotments made to the Indians on this reservation under the provisions of the act of March 1, 1907 (34 Stat., 1413), were approved by the department on August 28, 1909, the allotments being to some 797 Indians, covering an area of 354,294 acres.

Fort Berthold, N. Dak.—Former Special Allotting Agent John P. Young, who was engaged in making allotments to Indians on this reservation under the provisions of the act of March 1, 1907 (34 Stat., 1042), was relieved from duty on November 1, 1909, and the surveyor, Mr. Theodore N. Engdahl, was directed to revise and

check the schedule of allotments made by the former allotting agent. Prior to the time of being relieved from duty allotments were made to some 296 Indians, covering an area of 20,240 acres. There remain about 60 Indians entitled to allotments under the act of March 1, 1907, who have not as yet had lands assigned to them. The act of June 1, 1910 (36 Stat., 455) authorizes an additional allotment of 160 acres of agricultural or 320 acres of grazing land to each Indian on the Fort Berthold Reservation; the act provides also for the disposal of the surplus lands within that part of the reservation lying north and east of the Missouri River. It is the intention of the office to have the superintendent of the Fort Berthold Indian school, under authority found in section 9 of the act of June 25, 1910 (36 Stat., 858), to complete the allotment work on this reservation under the act of June 1, 1910.

Standing Rock, N. Dak.—Former Special Allotting Agent Carl Gunderson, now supervisor of allotting agents, during the early fall of the past year completed the allotment work on this reservation to all unallotted Indians then living. The act of May 29, 1908 (35 Stat., 444, 451), authorizes allotments to children born to members of any of the tribes on the various reservations into which the former Great Sioux Reservation was divided by the act of March 2, 1889 (25 Stat., 888), so long as the tribes living thereon remain possessed of any unallotted tribal lands. It is the intention of the office to have the superintendent, under the authority of section 9 of the act of June 25, 1910 (36 Stat., 858), make allotments from the surplus unallotted lands of the reservation to children born to members of the Standing Rock tribe. There is no authority for the disposal of the surplus lands within this reservation as diminished by the act of May 29, 1908 (35 Stat., 460), the lands within that part of the reservation covered by the act last mentioned having been opened to homestead settlement.

Cheyenne River, S. Dak.—It is expected that Special Allotting Agent John D. Deets, who has been engaged in making allotments to Indians on the Cheyenne River Reservation during the past few years, will have completed this work by August 1, 1910, or shortly thereafter. There is no authority for the disposal of the surplus lands within the diminished reservation. (See remarks under Standing Rock Reservation.)

Pine Ridge, S. Dak.—Under the provisions of the acts of March 2, 1889 (25 Stat., 888), and March 1, 1907 (34 Stat., 1048), allotments to 3,569 Indians on the Pine Ridge Reservation have been approved previously. During the past fiscal year Special Allotting Agent Charles H. Bates has completed allotments in the field to 891 Indians in addition to those heretofore approved. As there are in the neighborhood of 6,000 Indians on this reservation entitled to

allotments, it will take at least two years, if not longer, to complete the work. The act of May 27, 1910 (36 Stat., 440), authorizes the completion of the allotments and disposal of the surplus unallotted lands within that part of this reservation lying in Bennett County, S. Dak. In a recent report the special agent advised the office that the allotment work within Bennett County will be completed by October 1, but owing to the number of Indians allotted and those yet desiring to take allotments within this county, it is not believed that there will be any great quantity of desirable land left for homestead settlement. There is no authority, other than that found in the act of May 27, 1910, *supra*, for the disposal of the surplus lands within this reservation.

Rosebud, S. Dak.—It is estimated that the allotment work within this reservation will be completed by November 1, 1910, there remaining approximately 350 Indians yet to be allotted. This reservation has been diminished previously by various acts of Congress, and the act of May 30, 1910 (36 Stat., 448), authorizes the disposal of a part of this reservation lying within Mellette and Washabaugh counties. As the surplus lands, after allotments have been completed, must be classified and appraised, it is not believed that any steps looking to the disposal of the surplus lands can be taken prior to the calendar year 1911.

Colville, Wash.—The act of March 22, 1906 (34 Stat., 80), authorized allotments of 80 acres each to the Indians on this reservation. Section 39 of the act of June 25, 1910 (36 Stat., 863), amends the act of March 22, 1906, *supra*, so as to authorize allotments to these Indians under the general allotment laws as amended by section 17 of the act of June 25, 1910. This will enable the office to give these Indians allotments of 40 acres of irrigable land, or 80 acres of nonirrigable agricultural land, or 160 acres of nonirrigable grazing land, in the option of the allottee. As the allotment work has just begun, and as there are approximately 2,000 Indians to be allotted, it is believed it will take at least two years to complete the allotment work there.

Quinault, Wash.—The allotment work on this reservation has been very difficult owing to the heavy growth of timber and underbrush. It has practically been completed, however, during the past year by Special Allotting Agent Finch R. Archer, a recent report from this officer indicating that the field work was completed, and the only work yet to be done was the proper scheduling of the allotments for submission to the office. There is no authority under existing law for the disposal of the surplus lands within this reservation.

Yakima, Wash.—The act of December 21, 1904 (33 Stat., 595), authorized allotments to the Indians then living on this reservation and the disposal of the surplus unallotted lands. Allotments under

this act have been completed previously, and during the past year a commission has been engaged in the classification and appraisal of the surplus lands. The act of May 6, 1910 (36 Stat., 348), authorizes allotments to children on this reservation born since the previous allotment work was completed. Special Allotting Agent Matthew F. Nourse began work on this reservation under the act last mentioned on June 23, 1910, and it is estimated that there are about 400 Indians entitled to allotments. It is not believed that this work can be completed in time to enable the necessary steps to be taken to dispose of the surplus lands prior to the next calendar year. A recent report from the chairman of the appraising commission indicates that practically all of the valuable land within the reservation will have been exhausted after the allotments have been completed.

Nonreservation.—Special Allotting Agents William Williams, George A. Keepers, William M. Peterson, and Ralph Aspaas have been engaged in making allotments to Indians on the public domain in Arizona and New Mexico, under the provisions of the fourth section of the general allotment act of February 8, 1887 (24 Stat., 388), as amended by the act of February 28, 1891 (26 Stat., 794), Mr. Aspaas has made tentative allotments to some 515 Indians of the Papago tribe in Pima and Pinal counties, Ariz. Mr. Williams made tentative allotments of 15 acres each to 333 Indians under the jurisdiction of the Fort Mojave Indian School, Arizona. The allotments were made originally in this area, owing to the fact that there is a prospect of furnishing water to the Indians with which to irrigate their land. Mr. Keepers has made tentative allotments to 705 Indians on the public domain in Arizona, south of the Moqui Reservation. Former Special Allotting Agent William M. Peterson completed allotments to some 363 Indians in the vicinity of Houck, Ariz., south of the extension to the reservation, by executive orders of November 9, 1907, and January 28, 1908.

Nonreservation, Turtle Mountain.—During the past year allotments or homesteads to members of the Turtle Mountain band of Chippewa Indians on the public domain under the provisions of the act of April 21, 1904 (33 Stat., 189, 194), were approved to 1,177 members of this tribe, covering an area of 178,448.28 acres. These applications were filed with the local land offices at Minot, Great Falls, Glasgow, Williston, Rapid City, Bismarck, Miles City, Lewiston, and Devils Lake. Special Allotting Agent John F. Armstrong has been engaged, since the summer of 1909, in completing and perfecting applications by other members of this band for allotments on the public domain, principally in Valley County, Mont., under the jurisdiction of the local land office at Glasgow. It is estimated that there are about 1,200 other members of this band yet entitled to allotments or homesteads on the public domain.

LEASES OF TRIBAL LAND.

The rapid increase in the value of the grazing lands of the Indians on account of the reduction in area of the public domain by settlers has caused a remarkable increase in the rate paid for grazing privileges on many of the Indian reservations. On practically all of the reservations the rate paid for grazing privileges was increased anywhere from 25 to 100 per-cent. The new method of letting grazing privileges on tribal lands described in detail in last year's report has worked splendidly. In another place in this report I refer to the marked success of the new method on the Crow Reservation.

Under the authority of the Department of the Interior permits have been granted to a number of persons to prospect for minerals on lands in Utah, on the San Juan Reserve set aside for the Kaibab and Piute Indians, with the understanding that if the prospectors find valuable minerals in paying quantities the lands, which are unsurveyed, should be restored to the public domain, and could then be entered under the United States mineral laws.

The work of locating mineral fields on the Shoshone Reservation has advanced rapidly. Several wells have been drilled which have struck oil in paying quantities, and new coal mines are being opened. Preparations are being made to build a pipe line to the oil field. This will cause drilling to be carried on much more extensively, and a larger income will be derived by the Indians than that received from grazing privileges.

LEASES OF ALLOTTED LANDS.

Since the last annual report 701 Indians have been permitted to lease their allotments without departmental supervision. These were Indians who had been found competent to transact their own business affairs. The amended regulations governing the leasing of allotted lands approved March 16, 1905, were further amended by the approval on September 16, 1909, February 24, 1910, of drafts of regulations applicable to the Umatilla Reservation, Oreg., and the Omaha and Winnebago reservations, Nebr. New regulations governing the leasing of Osage allotments in Oklahoma were approved February 7, 1910, and the former regulations revoked.

The act of June 25, 1910 (36 Stat., 855), broadens the power of the Secretary of the Interior with regard to leasing Indian lands for a period not to exceed five years. The approval of leases with his authority can be conferred upon the superintendent or even upon the Indian.

RAILROADS.

Railroad construction across Indian lands has continued especially active in the Northwest. All grants of rights of way to railroad companies across Indian lands, except in Oklahoma, are made under the

provisions of the act of March 2, 1899 (30 Stat., 325). The act of March 2, 1899, was further amended by section 15 of the act of June 25, 1910 (36 Stat., 855), by adding to section 1 a clause requiring each and every applicant for a right of way under the act to stipulate as a condition precedent to the grant that it will construct and permanently maintain suitable passenger and freight stations for the convenience of each and every town site established by the Government along the right of way.

The act of March 3, 1909 (35 Stat., 781), authorized the department to grant to railroad companies owning or operating lines in any Indian reservation, lands for reservoirs, material or ballast pits, or for the planting and growing of trees to protect the lines of railway. No grants have been made under the provisions of this law. Two applications are now pending before the office.

By the act of May 6, 1910 (36 Stat., 349), the provision of law last referred to was extended and made applicable to any lands which have been allotted in severalty to any individual Indian or which have not been conveyed to the allottee with full power of alienation.

RAILROADS IN OKLAHOMA.

All grants of rights of way and grounds for railway purposes involving Indian lands in Oklahoma are made in accordance with act of February 28, 1902 (32 Stat., 43). The maps submitted under this act are not subject to the approval of the Secretary of the Interior, but are filed in this office as a part of the permanent records of the Government.

RAILROADS OUTSIDE OF OKLAHOMA.

Following is a summary of railroad rights of way and station grounds granted, affecting Indian lands outside of Oklahoma, for the fiscal year ended June 30, 1910:

Arizona Eastern Railroad Company.—On April 7, 1910, the department approved five maps showing location of 75.81 miles right of way of the Arizona Eastern Railroad Company across the Navajo Indian Reservation. This was an amendment of a right of way along practically the same route which had previously been approved to the Arizona and Colorado Railroad Company, the former company having succeeded to the rights and interests of the latter. Damages for the right of way are in course of adjustment.

Chicago, Milwaukee and Puget Sound Railway.—A schedule showing \$3,668.05 damages to tribal lands and \$1,210.65 to allotted lands of the Quinaielt Reservation was approved on December 1, 1909, and payment of the amounts named was accepted. The rights of way had previously been granted on November 30, 1908, 4.155 miles, and on June 7, 1909, 9.433 miles.

Maps showing definite location of 172.77 miles of right of way across the Cheyenne River Reservation were approved on September 10, 1909. Right of way for 55.14 miles across the Standing Rock Reservation was granted on September 10, September 21, and October 5, 1909. A schedule of damages to tribal lands on the Cheyenne River Reservation, amounting to \$13,540, was approved on December 22, 1909, the money collected, and placed to the credit of the Indians. Schedules showing damages of \$3,189.29 to tribal lands and \$6,794.10 to allotted lands on the Standing Rock Reservation were approved February 14, 1910, the money paid, and appropriately disbursed. Twelve Standing Rock allottees refused to assent to the damages as assessed by the superintendent in charge of the reservation, and three referees were appointed to make a reassessment, as provided in section 3 of the act of March 2, 1899.

Craig Mountain Lumber Company.—The schedule of damages for right of way across Nez Perce Indian lands was approved on July 9, 1909, and damages accepted for tribal lands, \$82.80; allotted lands, \$768.80; individual damages, \$1,092.80. Under date of October 25, 1909, a map showing terminal grounds of 13.8 acres on the same reservation was approved.

Chicago and Northwestern Railway.—On March 25, 1910, maps showing definite location of 36.47 miles of right of way and 8.68 acres of station grounds on Rosebud Indian lands, in Tripp County, S. Dak., were approved. Damages to allotted Indian lands amounting to \$18,501.50 were subsequently assessed and the schedule approved and money accepted on June 3, 1910. The amount was remitted to the superintendent to be distributed to the allottees.

Fernley and Lassen Railway.—A map of definite location of .848 mile across the allotment of Charles Ford, in the S. $\frac{1}{4}$ of sec. 35, T. 30 N., R. 11 E., Mount Diablo meridian, California, was approved on May 20, 1910, and the superintendent of Carson Indian School has been instructed regarding the assessment of damages.

Great Northern Railway.—This company is doing extensive construction work. On September 10, 1909, and March 28, 1910, maps were approved showing location of 25.46 miles right of way across the Colville Reservation, 16.03 miles across allotments along the Okanogan and Columbia rivers, and 35.77 acres station grounds. A schedule of damages to the allotments along the Okanogan River, north of the reservation, aggregating \$5,027.53, was approved on April 12, 1910, and the money forwarded to the superintendent to be paid to the allottees.

Under date of January 14, 1910, authority was granted for the company to survey and locate a line across the Fort Berthold Reservation. Maps showing the location of this line are pending before the office.

A map showing location of 4.20 miles of right of way across the northeast corner of the Fort Peck Reservation was approved on March 4, 1910. A schedule of tribal damages for this right of way, aggregating \$458.19, was approved on May 21, 1910, and the money credited to the tribe.

Under date of May 9, 1910, a right of way of 42.21 miles across the Fort Peck Reservation, running northwest from Poplar, was granted. Damages are in course of adjustment.

Idaho and Washington Northern Railroad.—A right of way of 0.75 mile across the allotment of a Calispel Indian, along the Pend d'Oreille River, in Stevens County, Wash., was granted on April 4, 1910, and the superintendent of the Colville Agency was designated to assess the damages.

Inter California Railway.—Under date of February 10, 1910, the department approved a map showing definite location of right of way across the Yuma Reservation, Cal., a distance of 3.316 miles. A schedule showing tribal damages amounting to \$450.80 was approved on May 14, 1910, the money accepted and deposited to the credit of the Indians. No allotted lands were involved.

Lake Creek and Cœur d'Alene Railway.—On October 16, 1909, maps showing additional right of way of 1.92 miles and station grounds of 13.5 acres on the Cœur d'Alene Reservation were approved.

When the schedule of damages was submitted, it was noticed that part of the right of way and the entire acreage for the station grounds were located upon lands which had been granted to the State of Idaho. The damages for this particular land were eliminated and the schedule approved for \$324.90. The company was advised that it must make its own arrangements with the State regarding the right of way and station grounds on the state school lands.

Minneapolis, St. Paul and Sault Ste. Marie.—This company applied for a right of way across Indian allotments and Chippewa ceded lands within the Minnesota National Forest. A map showing location of 26 miles right of way was approved on June 10, 1910. That part of the right of way across the Indian allotments was granted under the act of March 2, 1899, and the right of way across the ceded lands was granted under the act of March 3, 1875 (18 Stat., 482). The damages to the Indian allotments are in course of adjustment.

On February 18, 1910, the company was authorized to survey and locate a line of route across the Fort Berthold Reservation.

The Missouri River Railroad.—A map showing 10.33 acres of station grounds on allotted lands of the Standing Rock Reservation was approved on August 4, 1909. It afterward developed that the allottees had, prior to that time, sold their lands by authority of the

department. The company was notified to arrange with the purchasers for the right of way.

Nevada-California-Oregon Railway.—A schedule of damages to allotments in Modoc County, Cal., amounting to \$45, was approved on September 27, 1909. The right of way had previously been granted.

North Coast Railroad.—Two maps showing right of way across the Yakima Reservation, Wash., of 24.68 and 12.28 miles, respectively, were approved on November 10, 1909. Damages are being adjusted.

Northern Pacific Railway.—Under date of May 12, 1909, the department approved a map showing definite location of 21.116 miles right of way across the Fort Berthold Reservation, and designated the superintendent to act with a representative of the company in ascertaining and adjusting the damages.

Olympic Peninsula Railway.—A map showing location of 23.96 miles of right of way across the Quinalt Reservation was approved on October 25, 1909, and on April 27, 1910, two maps showing location of station grounds aggregating 27.39 acres were approved. Damages have not yet been adjusted.

Oregon Western Railway.—Maps showing location of 51.929 miles right of way and 41.325 acres of station grounds, Klamath Indian Reservation, were approved on October 25, 1909, December 24, 1909, and April 4, 1910. Damages are in process of adjustment.

Oregon Trunk Line.—On April 6, 1910, the department approved a map showing location of 4.02 miles of right of way across the Warm Springs Reservation in Oregon and issued instructions regarding the assessing of damages.

Southern Pacific Railway.—A schedule showing damages of \$4,316.52 to tribal lands in the Yuma Indian Reservation, Cal., was approved on May 19, 1910. These damages were for an amended right of way granted on June 18, 1907. The consideration for the amended right of way, in addition to the payment of the amount named, included the relinquishment of the original right of way, which relinquishment is to take effect in sixty days after construction of the line on the amended location.

Toppenish, Simcoe and Western.—A map showing location of 16.44 miles of right of way across the Yakima Reservation was approved on October 18, 1909. A schedule showing damages to allotted lands aggregating \$12,963 was submitted. For various reasons five of the allottees declined to assent to the assessment.

On May 7, 1910, the department approved the schedule, except as to these five allottees referred to, and appointed referees to reassess the damages to the particular lands.

Veblen and Northwestern Railroad.—On June 22, 1909, the department approved maps showing definite location of about 13 miles of

right of way across allotments of Sisseton and Wahpeton Sioux Indians, in Roberts and Marshall counties, S. Dak. The superintendent of the Sisseton Indian School has been designated to assess the damage.

Western Dakota Railroad.—The board of referees appointed to assess damages to the allotments of three Standing Rock Indians for right of way was submitted and approved by the department on April 27, 1910. The allottees assented to the appraisalment made by the referees.

On August 27, 1909, a map showing location of 13.77 acres of station grounds on the Standing Rock Reservation was approved. The schedule of damages has not yet been submitted.

Western Pacific Railway.—On December 1, 1909, a map showing amended location of 14.711 miles across the Pyramid Lake Indian Reservation was approved.

On March 31 a map of station grounds of 4.59 acres was approved. On the same day the department approved a schedule showing additional tribal damages of \$87.52 by reason of the amended location of right of way and station grounds.

ALIENATION OF ALLOTTED LAND.

Any Indian of 21 years or over who holds an allotment of land under a trust patent can—

1. Procure a patent in fee under the act of May 8, 1906 (34 Stat., 182), provided it is shown that he is competent to care for his own affairs.

2. Devise his land by will under the act of June 25, 1910 (36 Stat., 855–856), provided the land is not located in Oklahoma.

3. Sell his land under the act of March 1, 1907 (34 Stat., 1015–1018).

In the issuance of patents in fee the only question involved is the competency of the allottee, and even then the issuance of the fee patent is discretionary with the Secretary of the Interior. It must be clearly shown that the applicant for a fee patent is competent and that the issuance of the patent will be for his best interests.

Wills made by Indians under the act of June 25, 1910, must be approved by the Secretary of the Interior and the Commissioner of Indian Affairs. The will should conform to the laws of the State wherein the land devised is situated. The department will not consider a will after the issuance of a fee-simple patent to the devisor. The will must be drawn by or in the presence of the superintendent having jurisdiction over the land devised. When not so drawn, the circumstances must be satisfactorily explained. The section of the act of Congress approved June 25, 1910, which refers to wills does not apply to lands located in Oklahoma.

Any Indian to whom a patent has been issued containing restrictions against alienation can sell his or her lands under the act of March 1, 1907 (34 Stat., 1015-1018), as modified by the act of June 25, 1910 (36 Stat., 855-856). The land will be sold to the highest bidder and a patent in fee will be issued in the name of the purchaser, except in cases where the land is located in the State of Oklahoma, or where a fee patent with restrictions on alienation had issued to the original allottee. In these cases a warranty deed, executed by the allottee and approved by the Secretary of the Interior, will be given to the purchaser.

The money derived from the sale of the land will be deposited to the credit of the allottee, subject to check, but authority for the expenditure of the money must first be approved by the Commissioner of Indian Affairs. If the Indian is shown to be fairly competent to care for his affairs, a considerable portion of the money will be turned over to him. If good use is made of the privilege, additional sums will be given. In all cases sufficient funds will be given the Indian allottee to meet his absolute needs.

ALIENATION OF INHERITED LAND.

When any Indian to whom an allotment of land has been made, or may hereafter be made, dies before the expiration of the trust period and before the issuance of a fee patent, without having made a will disposing of his allotment, the heirs can—

1. Procure a patent in fee, if competent to care for their own affairs.

2. Sell the land under the supervision of the department.

3. If some of the heirs are competent and others not competent, the land may be partitioned by the Secretary of the Interior, provided it is shown that the lands are capable of partition to the advantage of the heirs. When partitioned, a patent in fee can issue for lands set aside to heirs who are competent, and the lands set aside to heirs who are not competent can be sold under the supervision of the department.

4. In case the land is sold under the supervision of the department the proceeds derived from the sale will be deposited to the credit of the heirs, and in case some of said heirs are competent their shares of the proceeds of sale will be paid to them.

The act of Congress approved June 25, 1910 (36 Stat., 855-856), provides that the Secretary of the Interior, *upon notice and hearing*, under such rules as he may prescribe, shall ascertain the legal heirs of deceased allottees and his decision thereon shall be *final and conclusive*.

When a petition for a patent in fee or a petition for the sale of inherited Indian land is received, the superintendent or other officer

designated by the Secretary of the Interior shall post notices in conspicuous places on the reservation, to the effect that on a certain date and place named he will take testimony to be submitted to the Secretary of the Interior for the purpose of determining the legal heirs of the deceased allottee. This notice shall be posted for a period of thirty days.

Before the time of hearing it shall be the duty of the superintendent or other officer designated by the Secretary of the Interior to carefully examine the allotment, census, annuity rolls, and other records on file at the agency and make notations therefrom as to the relatives of the decedent for use at the hearing.

All persons known to be entitled to participation in the estate, and all persons known by the superintendent who claim to be entitled to participation, must be notified of the time and place when and where the hearing is to be held.

The superintendent is directed to secure the attendance of at least two disinterested persons who are acquainted with and have direct knowledge of the family history of the deceased, to give testimony at the hearing, or he may procure their affidavits, and in case the affiants are not present at the hearing their affidavits must be read and made a part of the record. In case affidavits are submitted and any of the parties claiming an interest desire it, the affiants should be called for the purpose of cross-examination.

At the hearing the heirs, or those claiming as such, should be required to fully set forth their claims. All the testimony taken must be reduced to writing and subscribed and sworn to before the officer conducting the proceeding.

All the testimony taken, a copy of the posted notices to heirs, and a copy of the notice sent to persons to appear at the hearing must accompany the papers when the petition for a patent in fee or the papers relating to the sale of land are submitted for consideration.

CONTRACTS WITH INDIANS FOR LAND HELD IN TRUST.

Investigations made by the Indian Office show that on many reservations certain persons have procured Indians to sign a contract for the sale of Indian land held under a trust patent. While this contract is clearly void, in most instances it has been filed of record and was a cloud upon the title. The act of June 25, 1910 (36 Stat., 855-856), provides as follows:

SEC. 5. That it shall be unlawful for any person to induce any Indian to execute any contract, deed, mortgage, or other instrument purporting to convey any land or any interest therein held by the United States in trust for such Indian, or to offer any such contract, deed, mortgage, or other instrument for record in the office of any recorder of deeds. Any person violating this provision shall be punished by a fine not exceeding five hundred dollars for the first offense, and if convicted for a second offense may be punished by a fine

not exceeding five hundred dollars or imprisonment not exceeding one year, or by both such fine and imprisonment, in the discretion of the court: *Provided*, That this section shall not apply to any lease or other contract authorized by law to be made.

INDIVIDUAL INDIAN MONEYS.

The method of handling individual Indian moneys by depositing them in national banks under a proper surety bond, subject to the check of the Indian depositor when approved by the superintendent in charge of the reservation, has been continued throughout the year.

The educational value to the Indian of the training in handling money is kept constantly in mind by the office in managing these individual funds. An important forward step in training the Indian for self-support was taken last year. On October 29, 1909, instructions were issued to the officers in the field to recommend in their discretion the allowance of individual Indian "privileges" in the unrestricted use of a limited amount of their land proceeds. The object of these "privileges" is to widen the experience of those who are already started in the way of self-support, although still under supervision. The amounts allowed by the office under the recommendation of the superintendent in which he shows the Indian's competency in each case, varies from \$1 to \$500, according to the ability, opportunities, and resources of the applicant. Under this regulation the first allowance, if expended wisely by the Indians, may be followed by a second, larger in amount. If the Indian has not shown good judgment in the handling of his money, a smaller amount is tried the second time. These carefully guarded tests are calculated to awaken a sense of responsibility in the care of funds and at the same time avoid the disaster of a total loss. At first, requests for these "privileges" were extravagant, and the office was obliged to disallow them in whole or in part. The effect of this policy is now being manifested, however, in the increasing number of applications for smaller allowances without restrictions, showing the Indian's awakened sense of caution in money matters and his realization of the advantage of always retaining a small balance in the bank for a possible emergency.

Another forward step of very great importance has been the absolute abolishment of the "credit system." Under the old arrangement of indiscriminate allowances to all Indians having income from their lands it was the practice of licensed traders and other dealers to encourage the Indians to purchase on credit anything and everything invented or used by civilized man, thus obligating far ahead the funds they could hope to receive. In spite of stringent regulations this worked great hardship upon the Indians, so that it became necessary to definitely stamp it out, so far as the jurisdiction of the office

extended. Accordingly, under the date of December 17, 1909, the department issued an order calling the attention to section 561 of the Regulations of the Indian Office, effective April 1, 1904, in which persons doing business with Indians were warned that when credit was extended to them the creditor must take the risk and that no assistance whatever would be given by the superintendent of this office in the collection of alleged claims against Indians. Attention was invited to the step taken by this office on April 30, 1909, when notice was given to all interested that credit accounts against Indians subsequent to July 1 following would not be settled from funds in its custody unless authority for the purchases had previously been granted through the agent. This latest order laid upon the office the additional restraint that hereafter no assistance, direct or indirect, should be extended to creditors of Indians in the collection of claims.

Henceforth the settlement of debts of this nature from funds in the custody of this office lies entirely with the Indian debtor. The office merely acts as custodian of the funds for the Indian, who may ask permission to apply the funds for the liquidation of a just debt. If the Indian is sufficiently competent, the funds will be turned over to him on his written request, accompanied by the favorable recommendation of the superintendent, in an amount sufficient to cancel his obligation. Basing its action on this order of the department, the office called upon superintendents and agents on February 16, 1910, to proceed at once to collect and transmit the claims of all traders and others against every single Indian having land funds to his credit. The object of these instructions was to make a final clean-up of all claims recently contracted or of long standing against Indians for whose funds the office might, in a measure, be held responsible. Due notice has been given that all claims contracted subsequent to the date of the departmental order referred to will not be allowed unless previously authorized. Many of the claims filed with the superintendent are now in the office, and final action is being expedited in every way. When these are disposed of the administration of Indian-land money will be considerably simplified and the financial resources of the Indians held in readiness for application to present necessities and future needs, instead of being obligated in advance to meet extravagant bills.

A circular issued April 2, 1910, exemplifies the policy of the department as carried out by the office in regard to the application of money derived from the sale of lands. Under its provisions much of the responsibility for the proper handling of individual Indian funds is placed in the hands of the officer immediately in charge. This is manifestly an advantage, as the man on the ground is best acquainted with the conditions and best able to judge where the Indian's permanent advantage lies. This circular provides for the expenditure of

INSPECTION.

The inspecting and investigating service of the office, with the assistance of the inspectors of the Department of the Interior, covered during the year the entire field of Indian operations, with the exception of 1 Indian reservation, 2 boarding schools, and 3 day schools. Special investigations of conditions were made on 14 reservations.

There were employed during the year 10 supervisors and 5 special agents, from whom 275 reports were received; 274 of these required and have received administrative action.

The inspecting force of the office was deprived of the services of 7 of its men during the year for a period aggregating eleven hundred and fifteen days, during which time they were employed as acting superintendents in charge of reservations or schools, and as members of commissions.

THE KICKAPOO SITUATION IN OKLAHOMA.

The clearing up of the difficulties of the Kickapoo Indians of Oklahoma has been greatly hindered by legal delays of one kind and another. The Department of Justice, by means of civil suits and criminal actions, is endeavoring to recover for these Indians the lands which have been illegally and fraudulently purchased from them, and to punish those guilty of fraud. These lands were originally sold as a result of the act of June 21, 1906 (34 Stat., 325), which removed all restrictions from the alienation by the Kickapoo Indians of their title to their allotments in Oklahoma. In the opinion of the Department of Justice and of the Indian Service, this act gave authority for the alienation of the equitable titles only and did not authorize the alienation of the legal title to these lands which remained as theretofore in the United States. The Indians, however, immediately began to sell their lands for little or nothing and to give possession to the purchasers of lands, some of which were of great value as town lots. In some instances where the purchasers were unable to procure bona fide signatures from the Indians, they are alleged to have manufactured the signatures to deeds of sale to themselves.

The suits for the recovery of allotments where illegal and fraudulent deeds were procured are still pending in the circuit court of the United States for the western district of Oklahoma. The defendants demurred in these actions. They were argued, submitted on briefs, and taken under advisement by the district judge about a year ago. Recently the cases were reargued and submitted. A decision is expected soon. Two allotments have been recovered by the Government intervening in the State district court for Maverick County, Tex. No other cases have reached final judgment.

Criminal cases have been in the hands of the Department of Justice for a little over a year and they have secured indictments in the

county of Maverick, Tex., in 134 of the cases. The question of paying the expenses and fees of witnesses living in Oklahoma and Mexico for bringing them to Maverick County, Tex., has retarded the progress of these suits. Congress provided for these expenses in March and August, 1909. The greatest trouble, however, has been in securing the extradition of the defendants living in the State of Oklahoma, as the governor of Oklahoma has refused the request of the governor of Texas to send these defendants to Texas for trial.

Other resources have recently availed in bringing these defendants within the jurisdiction of the criminal courts, and satisfactory results are confidently expected in the near future.

OSAGES.

The settlement of the affairs of the Osages is practically completed. This settlement is authorized by the act of June 28, 1906 (34 Stat., 539). The act provided for the division of the lands and moneys of the Osage Indians to be made on the basis of a roll of membership approved by the Secretary of the Interior. Under the provisions of the act each member of the tribe was permitted to take three selections of 160 acres of land each, the selections for minors to be made by parents or the superintendent in charge of the Osage Agency.

The roll was approved April 30, 1908; it contained the names of 2,230 persons. In accordance with the act 1,465,350.50 acres have been allotted to the Indians on the roll; 5,178.53 acres have been reserved for church, town sites, and railroad properties; and there are now approximately 404,924 acres remaining unallotted.

The Osage trust fund on June 30, 1910, amounted to \$8,400,006.98. The school fund amounted to \$119,911.53. In addition to this these Indians received as royalties from the leasing of their oil and gas lands \$240,641.29, making a grand total of \$8,760,599.80. This represents approximately the wealth of the Osages in money.

These funds have been segregated and placed to the credit of the individual members in accordance with the provisions of the act already mentioned. The share of each member amounts to \$3,928.50.

Under another provision of the Osage act of 1906 the Secretary of the Interior is authorized, in his discretion, at the request and upon the petition of any adult member of the tribe, to issue to such member a certificate of competency which authorizes him to sell and convey any of the lands deeded to him under the act, except his homestead, which must remain inalienable and nontaxable for a period of twenty-five years, or during the lifetime of the homestead allottee, if, upon investigation, the Secretary shall find such member fully competent and capable of transacting his own business and caring for his own individual affairs.

Under this section the Secretary has approved the applications of 375 allottees up to August 1, 1910. This releases from departmental control practically 150,000 acres, or about 400 acres to each allottee.

By the terms of the act of 1906 all the funds, the lands, except as above noted, and minerals belonging to the Osage Indians shall be held in trust by the United States for twenty-five years from the 1st day of January, 1907. At the expiration of such period the lands, minerals, and moneys held in trust are to become the absolute property of individual members of the Osage tribe according to the roll approved by the Secretary, and the act provides that deeds for the lands shall then be issued to the members, or to their heirs, and the moneys shall be distributed to said members or their heirs as is provided in the act, and said members are to have full control of all lands, moneys, and mineral interests now belonging to the tribe.

THE CONSOLIDATION OF THE OMAHA AND WINNEBAGO AGENCIES.

The Omaha and Winnebago agencies were consolidated in the spring of 1910 and one superintendent placed in charge of both. These reservations are situated in northeastern Nebraska and have an area of about 250,000 acres. They were first consolidated in 1878, and the agencies were administered together until 1903, when they were again placed under separate superintendents. Under the present consolidation the business of the agencies is kept separate and conducted in practically the same manner as before. A chief clerk at the Winnebago Agency and another at the Omaha Agency take the place of the former superintendents. This arrangement makes it possible for the superintendent of the consolidated agencies to give all his time to constructive work on the two reservations.

Two expert farmers have been placed on each reservation, and an agricultural fair is to be established to further promote interest in agriculture.

The trust period of the Omahas expired during the past year. It was extended for ten years further so that the office might have opportunity to determine the competency of the allottees to manage their own affairs.

A competency commission was created to do this work, and it reported March 11, 1910. The commission divided the Omahas into three classes: (1) Composed of those fully competent to receive patents in fee for their land; (2) those partially competent and capable of making business transactions in connection with their allotted holdings, but not sufficiently competent to receive patents in fee; (3) those who were wholly incompetent and should remain under the supervision and jurisdiction of the Government for a further period of tutelage.

The progress made by these Indians during the year has amply shown that the consolidation of the two agencies was wise. The increased administrative efficiency resulting from it should make possible even greater development in the coming year.

The administrative changes made on these reservations last spring, while promoting agriculture among the Indians and leading to greater general efficiency, have at the same time resulted in a net reduction in the cost of administration.

CROW RESERVATION — MARKED SUCCESS OF NEW METHODS OF LEASING TRIBAL LANDS.

The new method of leasing tribal lands whereby leases are granted under the sealed-bid plan and the property of the Indians more adequately protected met with its most conspicuous success on the Crow Reservation, in Montana. The grazing lands of this reservation are much sought by stock owners, as they are among the best grazing lands in the West. The bidding for grazing privileges on the lands was therefore spirited, and the leases brought thousands of dollars more than ever before.

During the years 1908-9 five pastures on the Crow Reservation were let for \$33,001.27, while the same pastures, under the new system, brought this year \$140,250, or more than four times as much as the pastures brought the year before.

FIVE CIVILIZED TRIBES.

The question of opening the rolls of the Five Civilized Tribes came up before Congress last year, but no legislation was enacted and the citizenship rolls of the Five Civilized Tribes still remain closed as of March 4, 1907. Hearings were held before both Senate and House Committees on Indian Affairs looking to the reopening of the citizenship rolls. The reason for this proposal was that there might be added to the rolls the names of 52 persons whose cases were passed upon favorably by the Commissioner to the Five Civilized Tribes, but the records thereof did not reach the department until after March 4, 1907, when the rolls were closed, and also that there might be a review of about 2,100 cases decided between February 19 and March 4, 1907, following the opinion of the Attorney-General of February 19, 1907 (26 Ops. Attorney-General, 127), wherein he held different views from those entertained by the Department of the Interior and upon which decisions had been rendered in many cases. It was also planned that the opening of the rolls should include an investigation of the proposed transfer of the names of certain Choctaws and Chickasaws from the freedmen roll to the roll of citizens by blood because there was an alleged preponderance of Indian blood.

It is the belief of almost everyone interested in the welfare of the Indians that any reopening of the rolls would prove most unfortunate.

The rolls can not be considered as finally settled, however, until decisions are made in two important cases now before the courts. The Muskrat case, which is now pending before the Supreme Court, brings in question the enrollment of 5,590 enrolled Cherokees to whom tentative allotments have already been made. The Moses Whitmire case, now pending in the Court of Claims, will affect the right to enrollment of about 1,500 rejected freedmen claimants to citizenship in the Cherokee Nation, and should the Court of Claims decide in their favor the names of those persons will have to be transferred to the final approved roll of Cherokee citizens.

The equalization of the Creek allotments is a problem for Congress yet to solve, as no legislation on the subject was enacted at the last session, although bills upon the subject were introduced in both House and Senate. The question involved is whether the United States is liable for the deficit in lands and funds of the Creek Nation caused by the allotment at the tribe's request of land to its after-born children, thereby leaving insufficient lands and funds to equalize the allotment of adult Creeks in accordance with existing law. The question is primarily one for the courts to decide and will probably be settled by a reference to the Court of Claims.

The most serious problem which confronts the administration of the affairs of the Five Civilized Tribes is the final disposition of the segregated coal lands belonging to the Choctaw and Chickasaw nations, which can neither be leased nor sold under existing law. Section 61 of the Choctaw-Chickasaw agreement approved July 1, 1902 (32 Stat., 641), provided that:

No lease of any coal or any asphalt lands shall be made after the final ratification of this agreement (September 25, 1902).

Thereafter, Congress, by section 13 of the act of April 26, 1906 (34 Stat., 137), provided:

That all coal and asphalt lands, whether leased or unleased, shall be reserved from sale under this act until the existing leases for coal and asphalt lands shall have expired or until such time as may be otherwise provided by law.

Thus, the segregated coal lands stand in statu quo awaiting further legislation by Congress toward any further disposition of such lands.

The area of the segregated coal lands is 445,000 acres, of which 100,000 acres are under leases bearing date between July 11, 1899, and September 16, 1902, and running for a term of thirty years from date thereof.

A difference of opinion exists as to the extent and true value of the coal deposits, which have been examined by Joseph A. Taff, an expert from the Geological Survey, who made a surface examination

of outcroppings, and by the supervisor of mines, William Cameron, whose latest estimate, made from the drilling of 37 test holes, pursuant to the provisions of the act of June 21, 1906 (34 Stat., 346), in his report of November 5, 1909, is: Workable coal area on both unleased and leased, segregated lands 281,556 acres, valued at \$12,238,189, not including the surface, which the Commissioner to the Five Civilized Tribes values at \$6,675,780, thus making the total estimated value of the surface of the land and coal deposits thereunder \$18,913,969, or in round numbers nearly \$19,000,000, which differs widely from the estimate placed upon the coal lands by Joseph A. Taff, the geological expert, who went as high as \$100,000,000.

The large area of timber lands in the Choctaw and Chickasaw nations presents another difficulty in the way of winding up the affairs of the Five Civilized Tribes. This land was segregated by departmental letter of December 8, 1906, modified January 12, 1907, in which the Secretary of the Interior directed the Commissioner to the Five Civilized Tribes to withhold from further allotment an area of about 2,200,000 acres of land, of which 840,000 acres had already been allotted to citizens of the Choctaw and Chickasaw nations, leaving approximately 1,370,000 acres unallotted and estimated to be worth \$1,559,500, and of which the Secretary sought to induce Congress to create a national forest.

Congress has not yet confirmed his action by taking any steps looking toward the creation of a national forest. The Indians to whom have been allotted 840,000 acres within that area are authorized to dispose of the timber on their lands, which is scattered through this tract. Consequently extensive depredations have been and are continually being committed on this allotted land which experience has demonstrated it is important to prevent, although constant surveillance is maintained at considerable expense.

During the past year, as a result of the investigations of timber depredations, 60 persons were indicted by federal grand juries for the unlawful cutting of timber on these tribal lands. Fifteen were convicted and settlements have been made through the United States attorneys' offices, resulting in the recovery to the tribes of about \$10,000 for timber illegally taken, and the cases dismissed.

THE SAC AND FOX INDIANS IN IOWA.

The question of the settlement of the affairs of the Sac and Fox Indians in Iowa came up during the past year. A bill (H. R. 23963) was introduced in Congress which provided for the allotment of the lands of these Indians and for the disposition of their tribal funds. The department doubted whether legislation directing the division of the lands among the Indians would be wise. It sug-

gested that legislative action be delayed until the office could make further investigation of existing conditions.

The Sac and Fox of the Mississippi tribe of Indians in Iowa numbers 352 persons. The status of these Indians is peculiar in that they own their lands. They are the survivors and progeny of that part of the tribe which refused to move to the Indian Territory from Kansas, and in 1857 returned to its original home in Iowa. With their own money they purchased about 80 acres of land. The deed to this land was made in the name of the governor of Iowa as trustee in order that they might more effectually protect their holdings. Other purchases of land were subsequently made by them with their own funds and the title taken either by the governor of Iowa or the Indian agent of the United States as trustee. They now own about 3,000 acres, which is held by them in common.

In 1896 the State of Iowa, by act of the legislature, ceded to the United States jurisdiction over these Indians and their lands. By the act of June 10, 1896 (29 Stat., 331), Congress accepted the jurisdiction, and the legal title and trusteeship of the lands was transferred from the governor of the State and United States Indian agent to the Secretary of the Interior.

The Iowa branch of the Sac and Fox of the Mississippi tribe has a proportionate interest in the \$1,000,000 capitalized by the act of March 3, 1909 (35 Stat., 781). This branch of the tribe is entitled also to a proportionate share in the \$20,000 capitalized by the Indian appropriation act approved April 4, 1910. This sum is the commutation of the perpetual annuity of the Sac and Fox of the Mississippi tribe under the treaty of November 3, 1804 (7 Stat., 84). In addition there remains in the Treasury to the credit of this branch of the tribe a balance of \$9,603.93 from the fund known as the "Sac and Fox of the Mississippi in Iowa fund," arising under the provision of the act of June 10, 1896, already mentioned.

The first step toward settling the affairs of these Indians should unquestionably be the allotment of their lands. But there are serious difficulties in the way. Although the legal title of the lands is in the Secretary of the Interior as trustee, the lands were bought by the Indians with their own funds and belong to them. For that reason I do not believe it would be right to make any change in the present status of the lands without first gaining the consent of the Indians. Their attitude upon the question of allotment has been one of persistent opposition, and at the present time there is no likelihood of obtaining their consent to the breaking up of tribal ownership. Their tract of land is not large, and if prorated among the members of the tribe would give to each man only about 10 acres. Such a small holding would not be adequate for the support of these ignorant and nonprogressive Indians.

NORTHERN CHEYENNES.

A good start has been made in cattle raising among the Northern Cheyenne Indians upon the Tongue River Reservation, Mont. This reservation is an ideal grazing range of some 460,000 acres. Several years ago 2,000 cows were purchased for breeding purposes and upon this purchase the cattle industry of the Indians has been based. The cattle are owned by 442 individual Indians, each individual owner having a separate brand. The aggregate stock owned by all the Indians amounts to 6,000 head.

Several Indians own as many as 50 head of cattle, many of them but 1 or 2 head and no Indian owns over 100 head. The herds are slowly increasing. This fact lends much encouragement to the administration, as in the past the Northern Cheyennes have slaughtered many cattle, thus checking their increase. The future outlook for the growth of these herds is very encouraging.

The marketable steers and such cows as are fit for market are gathered annually and shipped to Chicago. Individual returns are made by the commission merchants handling the shipments and payments are made in full to the individual Indians interested.

The Cheyenne beef has been able to command the best prices and it appears to be desirable that this means of disposing of the increase be continued.

From this good beginning great progress is looked for in the coming year.

THE WHITE EARTH SITUATION.

A situation of extreme seriousness was discovered at the White Earth Reservation in Minnesota during the year. It is the old story of the robbery of Indian lands and the dirty work that goes with it. The fraud began in connection with the sale of the lands of the mixed-blood adults on the reservation. This sale was authorized by act of Congress June 21, 1906 (34 Stat., 325-353), which removed all restrictions against the sale, encumbrance, or taxation of allotments within the White Earth Reservation held by adult mixed-blood Indians. The act also declared that the trust deeds executed by the department for such allotments passed the title in fee simple.

The allottees began to sell their lands as soon as the act was passed. The cupidity of the white purchasers led to flagrant violations of the law. They purchased lands of Indians who were unquestionably full-bloods and plainly not competent to sell their lands under the law. Trickery and fraud of all kinds was resorted to, and finally about 95 per cent of the allotments, or the timber on the allotments, of White Earth allottees had been disposed of under the pretended authority of the law mentioned. Millions of dollars were involved in these illegal sales.

An investigation by representatives of the department was made early in the present fiscal year, and as a result thoroughgoing measures have been set on foot to get back the stolen lands as soon as possible. An employee of the office has been specially assigned to the preparation of the legal cases that will be necessary, and special United States attorneys have been assigned by the Department of Justice to recover the lands and value of the timber purchased from full-blood Indians, full-blood minors, and mixed-blood minors.

This work is being pushed with all possible energy, although progress is necessarily somewhat slow on account of the many legal difficulties in the way.

THE APACHES AT FORT SILL.

An effort was made at the last session of Congress to procure legislation for allotment of land to the Apaches on the Fort Sill Military Reservation. Two bills were introduced for this purpose—S. 6152 and H. R. 25297. Both bills failed of enactment, and an effort (H. J. Res. 196) to provide for the removal of this band of Indians to any Apache Indian Reservation in Arizona or New Mexico also failed of enactment.

This band of Apaches was removed to the Fort Sill Military Reservation, Okla., in 1894 on account of their outrages upon the settlers in Arizona and New Mexico. They have been under military surveillance since that time. A number of them have become fairly successful farmers and stock raisers. On the whole, they have made considerable progress. They have all become attached to their lands. It is the opinion of this office that such as wish should be permitted permanently to remain on and have allotted to them these lands upon which they now have their homes.

PAYMENT TO OTTAWA AND CHIPPEWA INDIANS OF MICHIGAN.

Payment to the Ottawa and Chippewa Indians of Michigan is now under way. This payment is being made as the result of a decision of the United States Court of Claims of March 4, 1907, which awarded these Indians the sum of \$62,496.40, with interest from March 9, 1885, a total of \$131,188.94.

This claim of the Indians had its origin in article 4 of the treaty of March 28, 1836 (7 Stat., 491), which provided, *inter alia*, that the Government for a period of twenty years thereafter should invest the sum of \$1,000 in stock, to be held in the Treasury for the benefit of the tribe.

By the treaty of July 31, 1885 (11 Stat., 621), the tribe seemed to release the United States from all liability under its prior treaty.

In 1885 the stocks and bonds purchased under the treaty of 1836 were sold and the proceeds converted to the use of the United States. The tribe still maintained that it did not surrender the securities mentioned, and was authorized by the act of March 3, 1905 (33 Stat., 181), to take its cause to the United States Court of Claims.

The sum of \$9,786.69, which represented certain moneys that had been erroneously covered into the funds of the Treasury, is included in this payment.

The roll of the Ottawa and Chippewa Indians of Michigan entitled to participate in these funds was made in accordance with the act of April 30, 1908 (35 Stat., 70). It contains the names of 5,442 members of the tribe living March 4, 1907, and also the names of 202 children born after that date and prior to August 1, 1908, the date of completing the roll in the field.

The sum of \$105,758.69 is being disbursed to the 5,442 members of the tribe, a per capita payment of \$19.43. The \$9,786.69 to be paid to the 5,442 members of the tribe plus the 202 children born after the date of the judgment will be divided equally, making a second per capita payment of \$1.74. The total per capita to be paid to the adult members of the tribe is \$21.16. The children born subsequent to the date of the award will receive per capita \$1.74.

The Ottawa and Chippewa Indians of Michigan represented by the treaty of July 31, 1855, as entitled to share in the award and other funds mentioned were made up of five bands—Sault Ste. Marie, Mackinac, Little Traverse, Grand Traverse, and Grand River. The Chippewas known as Black River, Swan Creek, and Saginaw bands were not parties to the award and are not entitled to share in the payments now being made.

Respectfully,

ROBERT G. VALENTINE,
Commissioner.

STATISTICAL TABLES.

TABLE 1.—Enrollment, average attendance, number of employees, expenditures, and value of products of Indian schools, fiscal year ended June 30, 1910.

Classes of schools.	Total enrollment.	Average enrollment.	Average attendance.	Employees.				
				Sex.		Race.		
				Male.	Female.	Indian.	Non-Indian.	Total.
<i>Exclusive of Five Civilized Tribes.</i>								
Government:								
Nonreservation boarding.....	8,863	7,812	7,383	385	428	205	608	813
Reservation boarding.....	10,765	9,474	8,823	501	706	349	858	1,207
Day.....	7,152	5,952	4,667	190	276	63	403	466
Field service.....				20	20	2	38	40
Total.....	26,780	23,238	20,873	1,096	1,430	619	1,907	2,526
Mission:								
Boarding.....	3,654	3,227	2,935	172	275	37	410	447
Day.....	216	184	129	2	11	2	11	13
Total.....	3,870	3,411	3,064	174	286	39	421	460
Contract:								
Mission boarding.....	1,084	975	899	58	74	9	122	132
Hampton Institute.....	85	73	66	8	8		16	16
Public day.....	111	92	43					
Total.....	1,280	1,140	1,008	66	82	9	139	148
Total, exclusive of Five Civilized Tribes.....	31,930	27,789	24,945	1,336	1,798	667	2,467	3,134
<i>Five Civilized Tribes.</i>								
Contract and tribal:								
Boarding.....	3,137	2,355	1,923	• 913			• 913	913
Day.....	2,816	• 2,816	• 2,816					
Total.....	5,953	5,171	4,739	• 913			• 913	913
Grand total.....	37,883	32,960	29,684	2,249	1,798	667	3,380	4,047

^a Average attendance and enrollment not reported. Figures represent total enrollment.
^b Includes female employees.
^c Includes Indian employees.

TABLE 1.—Enrollment, average attendance, number of employees, expenditures, and value of product of Indian schools, fiscal year ended June 30, 1910—Continued.

Classes of schools.	Expenditures.						
	Operation.		Transportation of pupils.	Building repairs.	Total operation and maintenance.	Outlays.	Total expenditures.
	Salaries and wages.	Miscellaneous.					
<i>Exclusive of Five Civilized Tribes.</i>							
Government:							
Nonreservation boarding.....	\$539,398	\$824,637	\$64,253	\$99,681	\$1,528,060	\$64,949	\$1,593,018
Reservation boarding.....	683,091	894,249	4,064	124,518	1,705,952	202,544	1,908,496
Day.....	241,864	101,812	373	14,219	358,268	47,568	405,836
Field service.....	1,508				1,508		* 1,508
Total.....	1,465,861	1,820,698	68,820	238,418	2,593,797	315,061	3,908,858
Mission:							
Boarding.....		341,436			341,436		341,436
Day.....		46,796			46,796		46,796
Total.....		388,232			388,232		388,232
Contract:							
Mission boarding.....		88,639			88,639		88,639
Hampton Institute.....		10,975			10,975		10,975
Public day.....		1,431			1,431		1,431
Total.....		101,045			101,045		101,045
Total, exclusive of Five Civilized Tribes.....	1,465,861	2,309,975	68,820	238,418	4,063,074	315,061	4,398,135
<i>Five Civilized Tribes.</i>							
Contract and tribal: Boarding...	197,732	188,827	.....	21,062	407,621	65	407,686
Total.....	197,732	188,827	.....	21,062	407,621	65	407,686
Grand total.....	1,663,593	2,498,802	68,820	259,480	4,490,695	315,126	4,806,821

Classes of schools.	Per capita cost of operation and maintenance.	Value of products raised.		
		Consumed.	Sold.	Total.
<i>Exclusive of Five Civilized Tribes.</i>				
Government:				
Nonreservation boarding.....	\$207	\$113,326	\$16,510	\$129,836
Reservation boarding.....	193	92,361	29,232	121,593
Day.....	77	2,948	1,192	4,140
Total.....	172	208,635	46,934	255,509
Mission:				
Boarding.....	116			
Day.....	363			
Total.....	127			
Contract:				
Mission boarding.....	99			
Hampton Institute.....	166			
Public day.....	33			
Total.....	100			
Total, exclusive of Five Civilized Tribes.....	164	208,635	46,934	255,509
<i>Five Civilized Tribes.</i>				
Contract and tribal: Boarding.....	86			
Total.....	86			
Grand total.....	151	208,635	46,934	255,509

* Expenditures for balance of field service included under various classes of schools.

TABLE 2.—*Number of pupils contracted for, average attendance, and cost of contract schools during fiscal year ended June 30, 1910.*

State.	Number of pupils contracted for.	Average attendance.	Amount paid.
Montana.....	60	55	\$5,974.52
Nebraska.....	59	24	574.39
Oklahoma.....	229	217	23,422.99
South Dakota.....	581	525	56,065.59
Utah.....	27	19	756.85
Virginia.....	120	64	10,974.99
Wisconsin.....	150	147	15,872.87
Total.....	1,326	1,053	114,343.10

TABLE 3.—*Indians in public schools not under government contract during the fiscal year ended June 30, 1910.*

State.	Enrollment.	Average attendance.
Arizona.....	25	17
California.....	209	137
Idaho.....	12	8
Kansas.....	23	4
Minnesota.....	200	101
Montana.....	123	64
Nebraska.....	11	9
Nevada.....	15	12
Oklahoma.....	275	160
Oregon.....	48	39
South Dakota.....	71	47
Utah.....	19	11
Washington.....	135	112
Wisconsin.....	207	130
Wyoming.....	23	13
Total.....	1,396	864

TABLE 4.—*Enrollment of white children in Indian schools during fiscal year ended June 30, 1910.*

States.	Highest enrollment.	Average attendance.
Arizona.....	1	1
California.....	2	2
Kansas.....	76	34
Minnesota.....	6	2
Montana.....	50	24
New Mexico.....	2	1
North Dakota.....	1	1
Oklahoma.....	5	2
Oregon.....	2	2
South Dakota.....	3	2
Wisconsin.....	47	27
Wyoming.....	11	5
Total.....	206	103

TABLE 5.—*Vital statistics of Indians as compared with all races for fiscal year ended June 30, 1910.*

	Births per 1,000 population.	Deaths per 1,000 population.
Indians ^a	30.2	24
All races.....	^b 35.1	^c 15

^a Based upon population of 149,776, being population of those reservations from which accurate statistics could be procured.

^b Census of 1900. Estimated.

^c Census Bureau report of 1909. Based on registration area of the United States with an estimated population of 48,776,893.

TABLE 6.—Expenditures for irrigation work on Indian reservations during fiscal year ended June 30, 1910, and total expenditures to that date.

Project or reservation.	Expenditures, fiscal year 1910.	Expenditures to June 30, 1910.	Estimated additional cost to complete.	Acreage under project June 30, 1910.	Acreage under ditch June 30, 1910.
Arizona:					
Camp McDowell.....		\$7,055.36	(a)	b 450	450
Colorado River.....	\$3,409.90	119,914.61	(a)	150,000	206
Fort Apache.....		6,204.70	(a)	b 1,400	1,400
Fort Mojave.....	1,146.45	10,611.93	(a)	1,000	.....
Havasupai.....		1,910.00	\$2,500.00	(c)	.....
Kalibab.....		5,073.02		220	220
Keams Canyon.....		5,567.30	(a)	(c)	.....
Papago.....	366.96	8,083.69	(a)	b 1,400	1,400
Pima.....	124,713.26	324,382.50	340,000.00	25,000	.....
Rice Station.....		7,855.77	(a)	(c)	.....
San Carlos.....	42.00	66,218.01	(a)	b 850	850
Truxton Canyon.....	1,987.10	15,332.52	.....	20	20
California:					
Reservations in southern California.....	20,244.36	139,959.59	(a)	3,800	3,490
Colorado:					
Southern Utes, allotted.....	1,882.95	75,530.24	149,848.27	18,630	3,365
Fort Lewis.....	42.00	522.69	(a)	(c)	.....
Idaho:					
Fort Hall.....	182,954.71	707,914.87	79,788.89	42,000	20,000
Fort Lapwai.....		2,995.70	(a)	b 299	299
Lemhi.....		2,268.25	(a)	(c)	.....
Montana:					
Blackfeet.....	123,212.02	237,214.79	1,070,596.25	44,000	14,000
Crow.....	64,944.47	990,023.61	(a)	69,340	62,689
Flathead.....	174,318.53	235,645.85	4,281,260.72	150,000	.....
Fort Belknap.....	25,937.14	161,681.46	49,780.86	34,600	20,900
Fort Peck.....	36,235.25	89,713.56	2,147,851.54	170,000	1,200
Fort Shaw.....	131.85	2,769.31	.....	100	100
Northern Cheyenne—Rosebud.....		4,664.48	(a)	(c)	.....
Northern Cheyenne—Tongue River.....	27,124.89	112,856.14	(a)	6,000	1,400
Nevada:					
Carson Sink allotments.....	12,064.00	24,128.00	96,512.00	4,640	4,640
Fort McDermitt.....	1,218.95	1,218.95	191.05	300	300
Mojave River.....	11.50	137.08	(a)	175	175
Pyramid Lake.....	48.96	39,824.09	65,000.00	3,500	1,000
Walker River.....	16,040.80	89,568.30	(a)	5,764	1,400
Western Shoshone.....	617.97	29,148.54	(a)	6,000	300
New Mexico:					
Albuquerque.....		4,818.08	(a)	(c)	.....
Jicarilla.....	688.60	7,564.09	(a)	280	280
Mescalero.....	123.50	8,927.90	(a)	350	350
Navajo and Moqui.....	31,454.76	211,938.81	(a)	15,000	4,600
Pueblos.....	1,659.59	41,240.78	(a)	b 6,656	6,656
San Juan.....		7,112.23	101,577.00	b 4,500	4,500
Santa Fe.....		3,422.74	(a)	(c)	.....
Zuni.....	44,104.69	371,377.30	181,243.61	8,000	3,200
Oregon:					
Klamath (irrigation).....	176.98	35,141.59	154,790.96	6,320	3,000
Klamath (drainage).....			(a)	73,680	.....
Warm Springs.....		200.00	.....	10	10
South Dakota:					
Pine Ridge.....	1,000.00	35,690.03	(a)	b 65	65
Utah:					
Uintah.....	140,487.88	670,156.51	228,976.91	98,360	65,720
Shivwits.....			.....	100	100
Washington:					
Colville.....			(a)	b 1,746	1,746
Yakima.....	22,934.02	251,686.52	1,715,104.48	100,000	30,000
Wyoming:					
Shoshone.....	83,845.66	445,513.12	174,486.88	63,667	45,399
Administration:					
Mission Indians, preliminary examinations, etc.....	41,256.89	131,833.16	.....	.....	.....
Total.....	1,194,927.39	5,751,635.77	10,839,499.42	1,118,212	306,430

(a) No data available as to estimated cost, only rough preliminary surveys having been made.

(b) Shows acreage now under ditch. No information to show acreage under project.

(c) No acreage under ditch thus far and no information to show acreage under project, only rough preliminary surveys having been made.

TABLE 7.—Population of Indians, June 30, 1910.

Grand total (exclusive of Alaska)-----	304, 950
Five Civilized Tribes, including freedmen and intermarried whites----	101, 287
Exclusive of Five Civilized Tribes-----	203, 663

BY STATES AND TERRITORIES.

Arizona-----	88, 475	New Mexico-----	18, 837
California-----	20, 976	New York-----	5, 476
Colorado-----	815	North Carolina-----	1, 909
Florida-----	858	North Dakota-----	8, 256
Idaho-----	8, 988	Oklahoma-----	117, 088
Indiana-----	243	Oregon-----	8, 477
Iowa-----	372	South Carolina-----	60
Kansas-----	1, 885	South Dakota-----	20, 803
Maine-----	425	Texas-----	470
Michigan-----	6, 784	Utah-----	1, 697
Minnesota-----	11, 095	Washington-----	9, 625
Montana-----	10, 766	Wisconsin-----	10, 803
Nebraska-----	3, 784	Wyoming-----	1, 701
Nevada-----	6, 192		

BY SCHOOLS AND TRIBES.

Arizona:		Arizona—Continued.	
Camp McDowell School—		Moqui School—	
Mohave-Apache-----	171	Moqui (Hopi)-----	1, 804
Yavapai-Apache-----	7	Navaho-----	^b 2, 000
Yuma-Apache-----	22		3, 804
	200		
Camp Verde School—		Navaho School—	
Mohave-Apache-----	282	Navaho-----	^b 10, 000
Tonto-Apache-----	118		
	400	Pima School—	
Colorado River School—		Apache-----	11
Mohave-----	477	Maricopa-----	321
Chemehuevi-----	4	Papago-----	704
Chemehuevi in Chemehuevi Valley-----	^a 55	Pima-----	4, 246
	536	Not on reservation—	
		Apache-----	48
Fort Apache School—		Papago-----	520
White Mountain Apache-----	2, 269	Pima-----	59
			5, 909
Fort Mohave School—		San Xavier—	
Chemehuevi-----	140	Papago-----	^b 4, 000
Mohave-----	742		
	882	San Carlos School—	
Havasupai School—		Coyotero-Apache-----	528
Havasupai-----	177	Mohave-Apache-----	89
Kaibab School—		San Carlos-Apache-----	1, 072
Paiute-----	83	Tonto-Apache-----	532
Leupp School—		Yuma-----	1
Navaho-----	^b 1, 000		2, 272
		Truxton Canon School—	
		Walapai-----	498

^a From report of 1906.^b Estimated.

Arizona—Continued.

Western Navaho School—	
Moqui (Hopi)-----	182
Navaho-----	* 6, 150
Palute-----	113
	6, 445

California:

Bishop School—	
Palutes-----	481

Cahuilla School—	
Mission Indians at—	
Cahuilla-----	152
Santa Rosa-----	74
	226

Campo—	
Mission Indians at—	
Campo-----	69
Cuyapipe-----	29
Laguna-----	8
La Posta-----	6
Manzanita-----	84
	196

Capitan Grande School—	
Mission Indians at—	
Capitan Grande-----	79
Los Conejos-----	58
Syquan-----	37
	174

Under farmer—	
Digger-----	48

Fort Bidwell School—	
Palute-----	144
Pit River (Achom- awl)-----	483
	627

Fort Yuma School—	
Yuma-----	655

Greenville—	
Digger-----	490
Washoe-----	75
	565

Hoopa Valley School—	
Hoopa-----	436
Lower Klamath-----	* 745
	1, 181

La Jolla School—	
Mission-----	125

* Estimated.

California—Continued.

Malki School—	
Mission Indians at—	
Mission Creek-----	5
Morongo-----	270
Palm Springs-----	42
San Manuel-----	53
Twenty-nine Palms-----	17
	387

Martinez School—	
Mission-----	308

Mesa Grande School—	
Mission Indians at—	
Mesa Grande and Santa Ysabel Nos. 1 and 2--	193
San Pascual-----	86
	279

Pala School—	
Mission Indians at—	
Pala-----	205
Pauma-----	54
	259

Pechanga School—	
Mission-----	186
Rincon Reservation—	
Mission-----	84

Round Valley School—	
Concow-----	183
Little Lake and Red- wood-----	99
Nomelaki and Pit River (Achomawi)-----	94
Yuki and Wallaki-----	231
	607

Soboba School—	
Mission Indians at—	
Santa Ynez-----	62
Soboba-----	141
	203

Tule River School—	
Tule River-----	156

Upper Lake—	
Potter Valley (Dig- ger)-----	55
Ukiah (Digger)-----	135
Upper Lake (Digger)-----	650
	840

* From report of 1895.

California—Continued.

Volcan School—

Mission Indians at—

Inaja	33
Los Coyotes	126
Santa Ysabel No. 8	169

328

Not under an agent—

Wichumni, Kawia, Pitt River (Achomawi), and others	13,061
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Colorado:

Navaho Springs School—	
Wimlinuche Ute	463
Southern Ute School—	
Capote and Moache Ute	352

Florida:

Not under an agent—	
Seminole	358

Idaho:

Coeur d'Alene Reserve—	
Coeur d'Alene	537
Spokane	96

633

Fort Hall School—

Bannock and Shoshoni	1,273
Lemhi	449

1,722

Fort Lapwai School—

Nez Perce	1,433
Not under an agent	200

Indiana:

Not under an agent—	
Miami	243

Iowa:

Sac and Fox School—	
Pottawatomie	2
Sac and Fox	365
Sioux	1
Winnebago	4

372

Kansas:

Kickapoo School—	
Iowa	273
Kickapoo	209
Sac and Fox	87

569

Kansas—Continued.

Pottawatomie School—

Munsee (or Christian) and Chippewa	92
Prairie Band of Pot- tawatomie	724

816

Maine:

Not under an agent—	
Oldtown	425

Michigan:

Bay Mills School—	
Chippewa	236
Under physician—	
L'Anse Vieux Desert and Ontonagon Chip- pewa	883

Not under an agent—	
Scattered Chippewa and Ottawa	5,587
Pottawatomie of Hu- ron	78

Minnesota:

Fond du Lac School—	
Chippewa	929

Leech Lake School—

Cass and Winneba- goshish	447
Leech Lake Pillager	797
Mississippi Chippewa	463

1,707

Nett Lake School—

Chippewa (Bois Fort)	637
-------------------------------	-----

Red Lake School—

Red Lake and Pem- bina Chippewa	1,404
--	-------

White Earth School—

Fond du Lac Chip- pewa (removal)	111
Mississippi Chip- pewa	

401

990

288

259

1,995

361

* From report of special agent March 21, 1906; 1,306 are on forest reserve.

* United States census of 1900.

* From report of 1902.

* From pay roll of 1906.

* From pay roll of 1888.

Minnesota—Continued.

White Earth School—Con.	
Pillager Chippewa—	
Cass and Winnebago- bagoshish (re- moval)	63
Leech Lake (re- moval)	277
Otter Tail.....	744
	5,489
Not under an agent—	
Mdewakanton Sioux—	
At Birch Cooley..	* 150
Elsewhere	b 779

Montana:

Blackfeet School—	
Chippewa.....	138
Piegán	2,269
	2,407
Crow School—	
Crow	1,740
Flathead School—	
Confederated Flat- head	2,285
Fort Belknap School—	
Assinibolne	696
Gros Ventre.....	501
	1,197
Fort Peck School—	
Assinibolne Sioux---	654
Yankton Sioux.....	1,102
	1,756

Tongue River School—	
Northern Cheyenne..	1,401

Nebraska:

Santee Agency—	
Ponca	290
Santee Sioux.....	1,155
	1,445

Winnebago School—	
Omaha	1,276
Winnebago	1,063
	2,339

Nevada:

Fallon School—	
Palute.....	319
Fort McDermitt—	
Palute	345

Nevada—Continued.

Lovelocks School—	
Palute	102
Moapa River School—	
Palute	128
Nevada School—	
Palute of Pyramid Lake	610
Walker River School—	
Palute	484

Western Shoshoni School—	
Hopi	1
Palute	250
Shoshoni	252
	503

Not under an agent.....	c 3,701

New Mexico:

Albuquerque School—	
Navajo	191
Pueblo.....	4,160
	4,351

Jicarilla School—	
Jicarilla Apache.....	743
Mescalero School—	
Mescalero Apache....	453
Pueblo Bonito—	
Navajo	d 2,783
San Juan School—	
Navajo	d 5,500
Santa Fe School—	
Pueblo	3,367
Zuni School—	
Pueblo	1,640

New York:

New York Agency—	
Cayuga	182
Oneida.....	276
Onondaga.....	547
Seneca.....	2,735
St. Regis.....	1,368
Tuscarora.....	368
	5,476

North Carolina:

Cherokee School—	
Eastern Cherokee....	1,999

North Dakota:

Fort Berthold School—	
Arickaree.....	411
Gros Ventre.....	468
Mandan.....	255
	1,132

* Report of 1901.
 † From report of 1899.

c United States Census 1900.
 d Estimated.

North Dakota—Continued.

Fort Totten School—

Sisseton, Wahpeton,
and Cut Head Sioux
(known as Devils
Lake Sioux) ----- 986

Turtle Mountain Chip-
pewa ----- 2, 684

3, 670

Standing Rock School—

Sioux ----- 3, 454

Oklahoma:

Cantonment School—

Arapaho ----- 243

Cheyenne ----- 513

756

Cheyenne and Arapaho
School—

Arapaho ----- 506

Cheyenne ----- 747

1, 253

Five Civilized Tribes—

Cherokee—

By blood ----- 36, 301

By intermarriage ----- 286

Delawares ----- 197

Freedmen ----- 4, 917

41, 701

Chickasaw—

By blood ----- 5, 688

By intermarriage ----- 645

Freedmen ----- 4, 651

10, 984

Choctaw—

By blood ----- 17, 489

By intermarriage ----- 1, 651

Mississippi Cho-
taws ----- 1, 637

Freedmen ----- 5, 985

26, 762

Creek—

By blood ----- 11, 911

Freedmen ----- 6, 806

18, 717

Seminole—

By blood ----- 2, 137

Freedmen ----- 986

3, 123

Oklahoma—Continued.

Kaw School—

Kansa (Kaw) ----- 231

Kiowa School—

Apache ----- 165

Comanche ----- 1, 476

Kiowa ----- 1, 866

Wichita and Caddo ----- 1, 021

4, 028

Osage School—

Osage ----- 2, 100

Otoe School—

Otoe and Missouri ----- 411

Pawnee School—

Pawnee ----- 653

Ponca School—

Ponca ----- 583

Tonkawa ----- 53

636

Red Moon School—

Cheyenne ----- 161

Sac and Fox School—

Iowa ----- 80

Sac and Fox of the
Mississippi ----- 541

621

Seger School—

Arapaho ----- 143

Cheyenne ----- 433

576

Seneca School—

Eastern Shawnee ----- 113

Miami (Western) ----- 127

Modoc ----- 67

Ottawa ----- 208

Peoria ----- 197

Quapaw ----- 307

Seneca ----- 390

Wyandot ----- 372

1, 771

Shawnee School—

Absentee Shawnee ----- 445

Citizen Pottawato-
mie ----- 1, 655

Mexican Kickapoo ----- 243

2, 343

Under War Department—

Apache at Fort Sill ----- 231

Union Agency (see Five
Civilized Tribes).

* Only those Indians appearing on rolls. No data as to number not enrolled.

Oregon:

Klamath School—
Klamath, Modoc and
Yahooskin Band of
Snake ----- 1, 126

Siletz School—
Clackamas ----- 6
Rogue River ----- 10
Santiam ----- 5
Siletz (Confederated). 437
Umpqua ----- 13
Wapato Lake ----- 4
Yamhill ----- 5
Indians who have re-
ceived patents in
fee ----- * 102

582

Umatilla School—
Cayuse ----- 298
Umatilla ----- 151
Walla Walla ----- 461

910

Warm Springs School—
Warm Springs (Con-
federated), Wasco,
Tenino, and Palute. 780
Allottees permanently
absent from the
reservation ----- * 70

South Carolina:

Not under an agent—
Catawba ----- * 60

South Dakota:

Cheyenne River School—
Blackfeet, Miniconjou,
Sans Arc, and Two
Kettle Sioux ----- 2, 590
Ute (Absentee) ----- * 371

Crow Creek School—
Lower Yanktonai
Sioux ----- 997

Flandreau School—
Flandreau Sioux ----- 275

Lower Brule School—
Lower Brule Sioux... 469

Pine Ridge School—
Oglala Sioux ----- 6, 758

Rosebud School—
Brule Sioux ----- 5, 096

Sisseton School—
Sisseton and Wahpe-
ton Sioux ----- 1, 994

Yankton School—
Yankton Sioux ----- 1, 753

* Report of 1907.
* Report of 1906.
* Estimated.

Texas:

Not under an agent—
Alabama, Muskogee,
and Cushman ----- * 470

Utah:

Shivwits School—
Palute ----- 125

Uintah and Ouray
Agency—
Uintah Ute ----- 444
Uncompahgre Ute... 460
White River Ute... 298

1, 202

Not under an agent—
Palute ----- † 370

Washington:

Colville School—
Columbia Moses ----- 521
Colville (south half) - 418
Kalispel (nonreserva-
tion) ----- 95
Lake and Colville... 294
Nespelem ----- 45
Nez Perce (Joseph's
Band) ----- 97
Okanogan ----- 538
Sanpoll ----- 189
Spokane ----- 504
Wenatchi (nonreser-
vation) ----- 66

2, 767

Cushman School—

Chehalis ----- 148
Clallam (James-
town) ----- 217
Clallam (Port Gam-
ble) ----- 99
Georgetown ----- 124
Nisqually ----- 146
Puyallup ----- 461
Qualitso (Queet-see) - 55
Quinalt (Taholah) - 231
Skokomish ----- 185
Squaxon Island ----- 98

1, 759

Neah Bay School—

Hoh ----- 54
Makah ----- 407
Ozette ----- 25
Quilleute ----- 226

712

* Report of 1908.
* United States Census, 1900.
† From Report of 1905.

Washington—Continued.

Tulalip School—	
Lummi	453
Muckleshoot	163
Suquamish (Port Madison)	181
Swinomish	267
Tulalip (remnants of many tribes and bands)	444
	<u>1,508</u>

Yakima School—

Klikitat, Yakima, and Wisham (Confederated Yakima)	2,679
Not under an agent—	
Nooksak	^a 200
	<u>2,879</u>

Wisconsin:

Keshena School—	
Menominee	1,509
Stockbridge and Munsee	593
	<u>2,102</u>

Wisconsin—Continued.

Lac du Flambeau School—	
Chippewa	687
	<u>687</u>
La Pointe School—	
Chippewa at—	
Bad River	1,147
Grand Portage	324
Lac Courte Oreille	1,373
Red Cliff	470
Rice Lake	189
	<u>3,503</u>

Onelda School—

Onelda	2,301
Wittenberg School—	
Winnebago	1,270
Not under an agent—	
Pottawatomie	440
	<u>4,011</u>

Wyoming:

Shoshoni School—	
Arapaho	861
Shoshoni	840
	<u>1,701</u>

TABLE 8.—Allotments approved during fiscal year ended June 30, 1910.

Reservation.	Number of allotments.	Acres.
Cheyenne River	445	105,071.64
Coeur d'Alene	637	103,911.53
Crow	11	2,242.16
Flathead	57	5,682.61
Jicarilla	797	354,294.00
Lac Courte Oreille	2	79.40
L'Anse and Vieux de Sert	18	1,320.00
Makah	373	3,730.00
Muckleshoot	4	202.00
Navajo	1,176	187,281.94
Osage, surplus	2,230	400,216.20
Pine Ridge	965	338,415.36
Port Madison	10	1,009.50
Public domain	1,178	178,608.28
Sioux ceded tract	216	68,578.12
Spokane	628	64,564.12
Standing Rock	1,275	360,012.71
Stockbridge and Munsee	167	8,920.00
Truckee-Carson	316	3,160.00
Umatilla	3	226.00
White Earth (original)	215	21,301.82
White Earth (additional)	271	16,812.84
Total	10,992	2,225,640.23

• Report of 1903.

TABLE 9.—*Total allotments to June 30, 1910.*

	Number of allotments.	Allotted.	Unallotted.	Total area of reservations. ^a
		<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
On reservations.....	185, 150	30,381,810	41,062,047	71,433,857
On public domain.....	5,261	711,837	.....	.....
Total.....	190,401	31,093,647	41,062,047	71,433,857

^a Exclusive of area reserved for agency, school, church, and other purposes.TABLE 10.—*Applications for patents in fee from May 8, 1906, to July 1, 1910.*

Number approved from May 8, 1906, to July 1, 1910.....	4,797
Number denied from May 8, 1906, to July 1, 1910.....	1,249
Area of lands covered by patents approved.....	478,975

TABLE 11.—*Sales of inherited lands and lands of noncompetent Indians during fiscal year ended June 30, 1910 (exclusive of Five Civilized Tribes).*

Class of land.	Number of tracts.	Acres.	Total proceeds.	Average price per acre.
Inherited.....	873	129,359.61	\$1,956,315.92	\$15.12
Noncompetent.....	520	82,655.80	1,245,639.96	15.07
Total.....	1,393	212,015.41	3,201,955.88	15.10

TABLE 12.—*Sale of Kaw and Osage lands from March 3, 1909, to June 30, 1910.*

[Act of March 3, 1909, 35 Stat., 778.]

Reservation.	Number of tracts.	Acres.	Total proceeds.	Average price per acre.
Kaw.....	15	2,278.22	\$33,130.00	\$14.54
Osage.....	17	1,896.46	33,328.60	17.57
Total.....	32	4,174.68	66,458.60	15.92

TABLE 13.—*Five Civilized Tribes, sales of allotted lands to June 30, 1910.*

Nation.	Area.	Average price per acre.	Amount received.
	<i>Acres.</i>		
Cherokee.....	11,372	\$12.21	\$138,872
Chickasaw.....	7,123	10.08	71,910
Choctaw.....	38,199	8.94	340,614
Creek.....	80,564	16.28	1,311,374
Total.....	137,257	11.88	1,862,770

TABLE 14.—Five Civilized Tribes, allotted lands from which restrictions have been removed to June 30, 1910.

Nation.	Act of July 1, 1902.	Act of Apr. 21, 1904.	By operation of law, Aug. 8, 1907.	Act of May 27, 1908.	Town-site removals, Mar. 2, 1908.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Cherokee.....	.....	318,600	.....	2,955,976	3,086	3,272,512
Chickasaw.....	207,700	299,000	.....	2,579,134	1,187	3,087,021
Choctaw.....	229,600	317,400	.....	2,935,982	3,615	3,486,497
Creek.....	73,110	649,490	364,680	979,403	6,849	1,973,522
Seminole.....	.....	.....	.....	.....	.....	(^b)
Total.....	510,410	1,479,390	364,680	9,450,495	14,587	11,819,532

* Includes 440,000 acres tentatively allotted to minors enrolled under act of April 26, 1906.

^b No land alienable pending issuance of deeds.

TABLE 15.—Mineral leases in Oklahoma on restricted Indian lands—Production and royalties, 1899 to 1910, inclusive.

Product.	Five Civilized Tribes.		Osage.		Total.	
	Production.	Royalty.	Production.	Royalty.	Production.	Royalty.
Oil.....barrels..	101,489,177	\$4,707,983	26,776,692	\$1,387,377	128,265,869	\$6,095,360
Gas.....(a)	63,589	.....	(a)	13,868	(a)	77,452
Coal.....tons..	32,834,799	2,776,320	.....	.....	32,834,799	2,776,320
Asphalt.....do	48,482	25,596	.....	.....	48,482	25,596
Miscellaneous.....(b)	.....	1,910	.....	.....	(b)	1,910
Total.....	.....	7,575,398	.....	1,401,270	.....	8,976,668

^a Not reported.

^b Brick, rock, gravel, and limestone.

TABLE 16.—Mineral leases on Shoshone Reservation, Wyo.—Production and royalties, 1907 to 1910, inclusive.

Product.	Production.	Royalty.
Oil.....barrels..	290	\$29.00
Coal.....tons..	158,472	26,833.44
Total.....	.....	26,862.44

TABLE 17.—Statement of individual Indian moneys for fiscal year ended June 30, 1910.

On hand July 1, 1909:		
In hands of disbursing officers.....	\$1,905,725.21	
In bonded banks to credit of individual Indians.....	4,716,896.88	
		\$6,622,622.09
Receipts:		
Allotments leased for farming and grazing.....	1,389,597.19	
Allotments leased for mining (oil and gas).....	1,417,709.75	
Allotments leased for business purposes.....	182.50	
Bids on allotments.....	6,540,924.53	
Bids on timber on allotments.....	692,318.30	
Pupils, outing earnings, and deposits.....	80,258.75	
Interest on individual deposits.....	176,016.05	
Miscellaneous sources.....	287,694.55	
		10,584,699.62
Total on hand and received.....		17,207,321.71

* Net receipts from sales of allotments, \$3,820,772.59.

Disbursements:

Paid direct to Indians by disbursing officers	\$2,393,159.72
Returned to unsuccessful bidders	2,720,151.94
Checks drawn by Indians on bank accounts	2,543,597.60
	<u>\$7,656,909.26</u>

Total balance on hand June 30, 1910:

In hands of disbursing officers	2,676,381.36
In bonded banks to credit individual Indians	6,874,031.09
	<u>9,550,412.45</u>

Total disbursed and on hand 17,207,321.71

Amount of bonds in force on June 30, 1910, to secure bank deposits of individual Indian moneys 10,094,500.00

TABLE 18.—Area of the territory of the Five Civilized Tribes June 30, 1910.

Nation.	Total.	Reserved for—								Allotted.	Unallotted and unreserved.
		Town sites.	Coal and asphalt segregation.	Railroad rights of way.	Schools.		Churches and cemeteries.	Other purposes.			
					Tribal.	Mission.					
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	
Cherokee.....	4,421,889	9,531	.....	12,000	605	56	635	2	4,348,760	50,300	
Chickasaw.....	11,680,226	23,823	7,839	8,382	4	800	189	3,881	8,312,900	2,840,000	
Choctaw.....		20,121	426,111	12,379	30	640	272	2,854			
Creek.....	3,079,063	10,694	.....	4,560	408	.....	235	86	2,999,400	63,670	
Seminole.....	366,159	635	.....	639	640	.....	14	655	360,790	2,786	
Total...	19,527,356	64,804	423,950	37,990	1,687	1,496	1,345	7,478	16,021,850	2,956,756	

* Includes proposed forest reserve, 1,370,000 acres; excludes segregated coal and asphalt tract, 445,000 acres.

TABLE 19.—Estimated value of agency and school properties, June 30, 1910, exclusive of Five Civilized Tribes.

	Area of sites.	Sites.	Buildings and improvements.	Furniture and fixtures.	Live stock.	Farming tools and vehicles.	Miscellaneous.	Total.
	<i>Acres.</i>							
Agency.....	85,039	\$1,509,638	\$1,121,205	\$74,732	\$128,404	\$107,640	\$346,449	\$3,288,068
School.....	93,473	3,502,361	7,400,053	638,194	296,215	166,697	896,190	12,899,710
Total.....	178,512	5,011,999	8,521,258	712,926	424,619	274,337	1,242,639	16,187,778

TABLE 20.—Area and estimated value of lands allotted and unallotted June 30, 1910, exclusive of area reserved for agency, school, church, and miscellaneous purposes.

	Area.			Value.		
	Allotted (trust patent).	Unallotted (tribal).	Total.	Allotted (trust patent).	Unallotted (tribal).	Total.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>			
Reservations.....	30,381,810	41,052,047	71,433,857	\$340,263,545	\$132,179,952	\$472,443,497
Public domain.....	711,837	.....	711,837	(a)	.....	(a)
Total.....	31,093,647	41,052,047	72,145,694	\$40,263,545	132,179,952	472,443,497

a No available data on which to base valuation.

TABLE 21.—Financial statement for year ending June 30, 1910, exclusive of individual Indian moneys.

In Treasury and hands of disbursing officers July 1, 1909.....	\$55, 677, 680. 93
Received during year.....	17, 688, 765. 48
	73, 366, 446. 41
Disbursed	18, 580, 291. 53
Balance on hand June 30, 1910.....	54, 806, 154. 88
	73, 366, 446. 41

TABLE 22.—Summary of vital legislation and important decisions during fiscal year ended June 30, 1910.**LEGISLATION.****I. GOVERNMENT AND PROTECTION OF INDIANS.****A. ALLOTMENTS.**

Special agents, superintendents, or agents may make allotments under regulations to be prescribed by the Secretary of the Interior. (Sec. 9, act of June 25, 1910, 36 Stat. L., 855.)

Allotments under general allotment act shall be made as follows:

- (1) Not to exceed 80 acres of agricultural or 160 acres of grazing land.
- (2) If lands have been or can be brought within an irrigation project, not to exceed 40 acres of irrigable land. (Sec. 17, act of June 25, 1910, 36 Stat. L., 855.)

B. LEASES.

Allotments held under trust patents may be leased for not to exceed five years, subject to regulations to be prescribed by the Secretary of the Interior. (Sec. 4, act of June 25, 1910, 36 Stat. L., 855.)

C. SALE.

Where an allotted Indian dies prior to expiration of trust period, the Secretary of the Interior shall ascertain the heirs on notice and a hearing. If lands can be partitioned, patents in fee can be issued to competent heirs and lands of incompetent heirs may be sold. The deferred-payment plan provided for. After payment of purchase price in full, patent in fee shall be issued to purchaser. (Sec. 1, act of June 25, 1910, 36 Stat. L., 855.)

This provision does not apply to Oklahoma.

D. WILL.

Except in Oklahoma allotted Indians over 21 years of age have right to make wills disposing of allotment, but no such will shall have any force or effect unless and until it shall have been approved by the Commissioner of Indian Affairs and the Secretary of the Interior.

E. TIMBER.

The sale of the mature living and dead and down timber on unallotted Indian lands, except in Minnesota and Wisconsin, the proceeds of the sale to be used for the benefit of the Indians of the reservation, is authorized by section 7, act of June 25, 1910 (36 Stat. L., 855.)

The timber on restricted allotted lands may be sold by allottee with consent of the Secretary of the Interior and the proceeds paid to the allottee or used for his benefit. (Sec. 8, act of June 25, 1910, 36 Stat. L., 855.)

F. IRRIGATION.

The Secretary of the Interior is given the discretionary power to reserve from location, entry, sale, allotment, or other appropriation any lands within any Indian reservation valuable for power or reservoir sites. He may also cancel any trust patent for any allotment which may be located within any power or reservoir site or upon lands required for irrigation purposes after proper reimbursement and upon condition that the allottee be granted other lands. (Secs. 13 and 14, act of June 25, 1910, 36 Stat. L., 855.)

II. GOVERNMENT OF THE INDIAN COUNTRY.**A. CONTRACTS.**

It is unlawful to induce any Indian to execute any contract, deed, or mortgage to convey any land or any interest therein held by the United States in trust, or to offer same for record. (Sec. 5, act of June 25, 1910, 36 Stat. L., 855.)

DECISIONS.**U. S. v. J. P. ALLEN ET AL.**

The United States has the right to appear as party plaintiff in suit in the federal court to recover restricted lands illegally sold by allottees of the Five Civilized Tribes. (Judge Amidon's decision of June 8, 1910; U. S. Court of Appeals, eighth circuit.)

U. S. v. CELESTINE (215 U. S., 278).

Legislation of Congress must be construed in favor of the Indians.

In the absence of subjection in terms of the individual Indian to state civil and criminal jurisdiction, and a denial of further jurisdiction by the United States, a statute will not be construed as a renunciation of jurisdiction by the United States of crimes committed by Indians against Indians on Indian reservations.

U. S. v. SUTTON (215 U. S., 291).

Congress has power to prohibit the introduction of liquor into the Indian country. The limits of an Indian reservation are not changed by allotments in severalty during trust period, and where allotments are subject to restrictions as to alienation the prohibition against liquor continues to be effective.

SUPPLIES FOR THE INDIAN SERVICE.

FISCAL YEAR 1911.

The following tables show the contracts awarded at Washington, D. C., under advertisements of January 10 and 17, February 1, 10, and 14, March 7, April 1, May 2, July 25, and August 12, 1910, for supplies for the Indian Service for the fiscal year ending June 30, 1911:

Classification of supplies.

	Page.
Agricultural implements.....	112-113, 140-141
Bacon, lard, and groceries.....	127-128, 135-138
Barley.....	128
Beef.....	128-130
Blankets and dry goods.....	78, 79
Bran.....	162
Boots and shoes.....	81-82
Coal.....	157-158
Corn meal, cracked wheat, etc.....	161
Dry goods.....	78-79
Enameled ware, lamps, etc.....	107-108, 136-137
Feed, ground.....	162
Flour.....	158-161
Furniture and wooden ware.....	108-109, 137-138
Glass, oils, and paints.....	117-119, 141-143
Gloves and suspenders.....	80
Groceries.....	127-128, 135-136
Hardware.....	93-106, 146-157
Harness, leather, shoe findings, etc.....	109-112, 138-140
Hats and caps.....	81
Live stock.....	134
Medical supplies.....	82-92
Notions.....	80-81
Oats.....	163-164
Piece goods, clothing, etc.....	76-77
Salt.....	130-134
School books, etc.....	121-127
Shorts.....	164
Stoves, pipe, etc.....	120-121, 145-146
Tin and stamped ware.....	119-120, 143-145
Underwear and hosiery.....	79
Wagons and wagon fixtures, etc.....	113-116, 135

Names and numbers of contractors.

- | | |
|---------------------------------|-----------------------------|
| 1. Abdalla, George. | 12. Atlas Oil Co. |
| 2. Abraham & Straus. | 13. Babbitt, David. |
| 3. Albrecht, Gustave A. | 14. Bacon & Co. |
| 4. Alleman, Charles L. | 15. Badger, William C. |
| 5. Alma Grain and Lumber Co. | 16. Baker & Hamilton. |
| 6. American Book Co. | 17. Baker, H. W., Linen Co. |
| 7. American Seating Co. | 18. Banks, Frederic S. |
| 8. American Steel and Wire Co. | 19. Barnes, Edward. |
| 9. Armour & Co. | 20. Barnhart, Kenneth. |
| 10. Art Aseptible Furniture Co. | 21. Barth, Leopold, & Son. |
| 11. Aseptic Products Co. | 22. Bauer, Gustav T. |

23. Benda, Frank.
24. Bergin, Edward E.
25. Betz, Frank S., Co.
26. Binney & Smith Co.
27. Blackfoot Farmers' Milling Co. (Limited).
28. Block, Maurice.
29. Blohm, Charles H.
30. Blunt, Charles W.
31. Book-Cliff Railroad Co.
32. Bossemeyer Bros.
33. Boylan, Christopher C.
34. Bradley, Byron H.
35. Brewer, Edwin A.
36. Brittain, John C.
37. Brown, Bernard C.
38. Brown Shoe Co.
39. Burroughs, Benjamin L.
40. Burton & Davis Co.
41. Butterworth, William.
42. Campbell, William V.
43. Capewell Horse Nail Co.
44. Carpenter Paper Co.
45. Carrigan, Andrew.
46. Carrigan, Edmond B.
47. Castle, Timothy P.
48. Chatterton, Howard E.
49. Chatterton & Son (Incorporated).
50. Chedic, Walter H.
51. Clifford, Henry E.
52. Clover, John A.
53. Consolidated Sales Co. (Incorporated).
54. Cook, E. C., & Bro.
55. Cook & Heitman.
56. Cook, John R.
57. Corder, James D.
58. Cosier, Howard M.
59. Coulson, Don Carlos.
60. Cox, Harry L.
61. Crucible Steel Co.
62. Cudahy Packing Co.
63. Cutting, Nathaniel H.
64. Daggett, Charles A.
65. Dakin, H. T.
66. Dalziel-Moller Co.
67. Dana, Leslie.
68. Decker, Edward C.
69. Detroit Stove Works.
70. Devitt, James.
71. Dohrmann, Nathan, Co.
72. Dolliver, Sewell.
73. Donahoe, Edward L.
74. Douglas, Albert B.
75. Doup, Louis G.
76. Dulany, R. Gordon.
77. Eakle, Charles M.
78. Eames, John C.
79. Eisman, David.
80. Eloesser, Arthur.
81. Fairbanks Co., The.
82. Feldmann, Walter H.
83. First & Wooster.
84. Fitzgibbons, Thomas J.
85. Flemming, Ernest.
86. Fogle, I.e Roy.
87. Ford, J. B., Co.
88. Fouke, Paul T.
89. Francisco, Joseph S.
90. Frank, Albert.
91. Frank, Henry.
92. Fricke, John W.
93. Frye-Bruhn Co.
94. Fuller, W. P., & Co.
95. Gale Manufacturing Co.
96. Gallup Mercantile Co.
97. Garner, John T.
98. Geddes, James.
99. Geldart, Richard W.
100. George, Ira M.
101. Gilman, Stephen F.
102. Goldberg, Garrett M., & Co.
103. Goldman, Charles.
104. Goodyear Rubber Co.
105. Graham, John W., & Co.
106. Greene, Henry S.
107. Haas, William.
108. Hall, Walter S.
109. Handlan-Buck Manufacturing Co.
110. Harbison & Gathright.
111. Harrington & Goodman.
112. Hanson, George M.
113. Haslam, Fred, & Co.
114. Haydock, John.
115. Haysler Manufacturing Co.
116. Heidelberg, Wolff & Co.
117. Herbert & Wilhite.
118. Herman, Joseph M.
119. Hersch, Leo.
120. Hess, Eugene C.
121. Hill, Mack.
122. Heyman, Samuel.
123. Hiller, John Roy.
124. Hockmeyer, Vincent.
125. Hodges, Francis M.
126. Holbrook Bros.
127. Holbrook, Henry M.
128. Holden Patent Book Cover Co.
129. Holzbog, Alfred T.
130. Hooker, H. M., Co.
131. Hopkins, Edwin.
132. Howe Scale Co., The (Illinois).
133. Indianapolis Furniture Co. (Incorporated.)
134. Johns, Hugh M.
135. Jones, Thomas W.
136. Kahlke, William J.
137. Kalb, Louis.
138. Kasper, Peter J.
139. Kaull, Burt J.
140. Keller & Tamm Manufacturing Co.
141. Kellogg, Harry H.
142. Kendall, Oliver P.
143. Kennedy, Harry M.
144. Kentucky Wagon Manufacturing Co.
145. Keyes, Rollin A.
146. Keyser, William H.
147. Kimble Glass Co.
148. Kiper, Charles.
149. Kleinwort, Emil.
150. Kronauer, Charles.
151. Krueger & Bilben.
152. Kuhlmeiy, Albert.

- 152½. Lake, J. Arthur.
153. Lemberger, William F.
154. Levison, Bernard.
155. Littauer, Lucius N.
156. Little, Arthur L.
157. Lumaghi Coal Co.
158. Lyford, Harry B.
159. MacGill, Alexander D.
160. McCormac, John F.
161. McGrath, Charles J.
162. McLoughlin, John E.
163. Mallinckrodt Chemical Works.
164. Maltbie Chemical Co.
165. Manhattan Supply Co.
166. Manhattan Rubber Manufacturing Co.
167. Marcus, Alfred J.
168. Marks, Edward M.
169. Martin, Charles J.
170. Martin, James C.
171. Martin, Wilton G.
172. Meinecke & Co.
173. Meinecke, Henry, & Son.
174. Merchants Coal Co.
175. Merrell, P. B., Co.
176. Merrell Drug Co., J. S.
177. Meyer Brothers Drug Co.
178. Middlemas, Stuart.
179. Mieling & Fieweger.
180. Mills, Henry T.
181. Miltenberger, George.
182. Mineralized Rubber Co.
183. Moes, Reuben.
184. Mueller, Robert H.
185. Murdock, Mathew C.
186. Naiswald, Louis C.
187. Nathan, Jonathan.
188. Neiss, John H.
189. Newmann, Hans.
190. Newmark, Morris A.
191. Nichols, Herbert L.
192. Norris, Thomas C.
193. Nystrom, Albert J.
194. O'Connor, Charles M.
195. Oestmann, Jacob L.
196. Ottenheimer, Martin C.
197. Pacific Grocery Co.
198. Pacific Hardware and Steel Co.
199. Parke, Davis & Co.
200. Peabody, Thomas A.
201. Peoria Cordage Co.
202. Perkins-Campbell Co.
203. Perry Coal Co.
204. Pickens, Charles H.
205. Pippey, William F.
206. Platte Center Milling Co.
207. Port Costa Milling Co.
208. Porter, James N.
209. Portland Flouring Mills Co.
210. Puhl-Webb Co.
211. Puterbaugh, Jay G.
212. Quast, Herman M.
213. Rahm, John B.
214. Reed, Joseph C.
215. Reichardt, F. Alfred, & Co.
216. Reid, Murdoch & Co.
217. Republic Bag and Paper Co.
218. Riverside Mill Co.
219. Roane Bros.
220. Roby, Frank H.
221. Roodhouse, Frank S.
222. Rosenberg, Abraham.
223. Ross & Modisett.
224. Rothchild, John, & Co.
225. Rudgear-Memle Co.
226. Rumsey, L. M., Manufacturing Co.
227. Russell Manufacturing Co.
228. Salz, Ansley K.
229. Samoa Mercantile Co.
230. Sanders, Frank L.
231. Schilling, Anton.
232. Schmidt, Fred A.
233. Schuldt, Claus J., & Son.
234. Schultz, Frederick.
235. Scovill Manufacturing Co.
236. Seabury & Johnson.
237. Searing, Charles H.
238. Seymour, C. Birney.
- 238½. Shanley, Wm. G.
239. Shear, William M.
240. Sherburne Mercantile Co.
241. Sherman Institute.
242. Sibley, John D.
243. Siegel-Cooper Co.
244. Singer, Stephen.
245. Smith, Horace W.
246. Smith, M. E., & Co. (Incorporated).
247. Smith & Stever.
248. Snellenburg, Joseph N.
249. South Bend Chilled Plow Co.
250. Spear, Willis M.
251. Spiegelman, Morris.
252. Standard Biscuit Co.
253. Standard Oil Co. (Indiana).
254. Starr, William H.
255. Stevens, Lawrence C.
256. Stewart, Frank M.
257. Straukamp, H. J., & Co.
258. Sudbury, Edward B.
259. Superior Seating Co.
260. Susskind, Joseph N.
261. Swift & Co.
262. Syndicate Trading Co.
263. Tarr, Nathan W.
264. Tay Co., George H.
265. Taylor, Rush J.
266. Thompson, Archie.
267. Thompson, Clyde B.
268. Timms, Walter B.
269. Trask, Edward J.
270. Tripp, Dales D.
271. Troy Laundry Machinery Co. (Limited).
272. Tubbs Cordage Co.
273. Tuttle, William O.
274. Valley Flour Mills.
275. Vanderwagen, Andrew.
276. Van Tassel, Frank L.
277. Vollrath Manufacturing Co., Jacob J.
278. Wait, Walter B.
279. Walker, William I.
280. Walsh, Edward J.
281. Wanamaker, John (New York).

282. Ward, Stephen S.	295. Wilder, John E.
283. Waters-Pierce Oil Co.	296. Wilham, Arthur C.
284. Wedeles, Edward L.	297. Williams, Christ.
285. Weinstein & Maher Clothing Co.	298. Wirt, Emmet.
286. Weller, Charles F.	299. Wittenberg Cedar Co.
287. Welter, John N.	300. Wood, Walter A., Mowing and Reaping Machine Co.
288. Western Valve Co.	301. Wooster, Will.
289. Weston, Dodson & Co. (Incor- porated).	302. Wright, Perley N.
290. Whitall-Tatum Co.	303. Wrought Washer Manufacturing Co.
291. White, Richard P.	304. Wunder, Adam D.
292. Whiteside, Henry O.	305. Yates, Charles M., jr.
293. Whittier-Coburn Co.	306. Zelle, Charles E.
294. Wiggin, Charles M.	

Contracts awarded under advertisement of January 10, 1910, for piece goods, clothing, overalls, shirts, and tailors' trimmings.

PIECE GOODS, CLOTHING, ETC.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Piece goods:			
3,035 yards....	Cassimere, all wool, navy blue—			New York.
635 yards....	Winter weight.....	77	\$1.98	Do.
2,050 yards....	Summer weight.....	77	1.65	Do.
	Corduroy.....	124	.88	Do.
	Corduroy clothing:			
	Coats, single breasted—			
3,010.....	Sizes 24½ to 28½.....	281	1.67	Do.
4,158.....	Sizes 29 to 35.....	285	2.58	Do.
1,624.....	Sizes 36 to 44.....	285	3.26	Do.
	Trousers—			
3,895 pairs....	Knee, 25 to 28 waist (ages 6 to 12 years).....	281	.70	Do.
	Long—			
3,010 pairs....	24½ to 27 waist, 20 to 26 inseam (ages 6 to 12).....	285	1.07	Do.
9,861 pairs....	27½ to 32 waist, 27 to 32 inseam (ages 13 to 19).....	281	1.57	Do.
4,104 pairs....	33 to 42 waist, 31 to 34 inseam.....	285	1.85	Do.
	Police uniforms (sizes as may be required):			
	Coats, men's—			
54.....	Officers', cassimere—			
	Winter weight.....	248	6.08	Do.
53.....	Summer weight.....	248	5.57	Do.
	Privates', cassimere—			
564.....	Winter weight.....	248	5.93	Do.
520.....	Summer weight.....	248	5.41	Do.
	Trousers, men's—			
	Officers', cassimere—			
54 pairs.....	Winter weight.....	248	4.02	Do.
55 pairs.....	Summer weight.....	248	3.56	Do.
	Privates', cassimere—			
552 pairs.....	Winter weight.....	248	4.00	Do.
535 pairs.....	Summer weight.....	248	3.56	Do.
	Waistcoats, men's, officers', and privates', cassimere—			
577.....	Winter weight.....	285	1.65	Do.
489.....	Summer weight.....	248	1.40	Do.
682.....	Duck clothing—Reefer coats, D. B., blanket lined, sizes 32 to 46.....	219	4 27	Do.
	Uniforms—Cassimere:			
	Coats, uniform, navy blue, single-breasted—			
1,240.....	Sizes 24½ to 28½ chest measure—			
	Winter weight.....	116	3.32	Do.
1,024.....	Summer weight.....	116	2.95	Do.
	Sizes 29 to 35, chest measure—			
1,950.....	Winter weight.....	248	4.75	Do.
1,820.....	Summer weight.....	248	4.28	Do.
	Sizes 36 to 44 chest measure—			
679.....	Winter weight.....	248	5.64	Do.
1,035.....	Summer weight.....	248	5.00	Do.
	Trousers, uniform, navy blue—			
865 pairs.....	Knee, 25 to 28 waist (ages 6 to 12)—			
	Winter weight.....	248	1.32	Do.
1,014 pairs.....	Summer weight.....	248	1.20	Do.

* Only.

Contracts awarded under advertisement of January 10, 1910, for piece goods, clothing, overalls, shirts, and tailors' trimmings—Continued.

PIECE GOODS, CLOTHING, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Uniforms—cassimere—Continued.			
	Trousers, uniform, navy blue—Continued.			
	Long, 24½ to 27 waist, 20 to 26 inseam (ages 6 to 12)—			
485 pairs.....	Winter weight.....	285	\$2.38	New York.
345 pairs.....	Summer weight.....	285	2.18	Do.
	27½ to 32 waist, 27 to 32 inseam (ages 13 to 19)—			
1,829 pairs.....	Winter weight.....	248	3.40	Do.
1,821 pairs.....	Summer weight.....	248	3.30	Do.
	Sizes 33 to 42 waist, 32 to 34 inseam—			
713 pairs.....	Winter weight.....	248	3.99	Do.
1,130 pairs.....	Summer weight.....	248	3.55	Do.
	Overalls, with bib, denim:			
7,260 pairs.....	24½ to 27 waist, 20 to 26 inseam.....	80	.3775	San Francisco.
12,370 pairs.....	27½ to 32 waist, 27 to 32 inseam.....	246	.65	Omaha.
7,450 pairs.....	33 to 42 waist, 32 to 34 inseam.....	154	.8148	New York.
	Jumpers, denim:			
1,750.....	Boys', sizes 12 to 14½.....	154	.6724	Do.
4,145.....	Men's, sizes 15 to 18.....	154	.7674	Do.
	Shirts (standard sample, assorted sizes, neck measure):			
	Chambray—			
15,670.....	Boys', 11 to 14½ inches.....	20	.305	Chicago.
11,300.....	Men's, 15 to 18 inches.....	20	.345	Do.
	Fancy flannel—			
5,570.....	Boys', 11 to 14½ inches.....	20	.50	Do.
4,400.....	Men's, 15 to 18 inches.....	20	.59	Do.
	Tailors' trimmings:			
780 yards.....	Lining, drab, worsted, not under 30-cent grade, for body linings of corduroy coats.....	111	.30	New York.
2,860 yards.....	Sateen, black or Italian cloth, 32 inches wide, for body linings of uniform coats.....	281	a. 1.666	Do.
1,665 yards.....	Sleeve lining, twilled, 40 inches wide.....	165	.127	Do.
3,485 yards.....	Drilling, or corset jeans, slate, 27 to 28.....	78	.09	Do.
720 yards.....	Haircloth, 16 inches wide.....	281	a. 1.451	Do.
1,950 yards.....	Canvas, tailors', unbleached, 22 inches wide.....	20	.115	Chicago.
111 dozen.....	Wadding, cotton, slate color.....	243	.1925	New York.
772 yards.....	Wigan, black.....	281	a. 0.645	Do.
	Buttons—			
	Black, vegetable ivory—			
41 gross.....	Overcoat, 40-line.....	2	1.72	Do.
18 gross.....	Overcoat, 50-line.....	2	2.75	Do.
312 gross.....	Coat, 30-line.....	2	.88	Do.
132 gross.....	Vest.....	2	.715	Do.
	Bronze army—			
90 gross.....	Coat, 30-line.....	235	1.30	Do.
36 gross.....	Vest, 24-line.....	235	.70	Do.
	Metal—			
900 gross.....	Trousers, suspenders.....	20	.067	Chicago.
635 gross.....	Trousers, fly.....	20	.06	Do.
420 ounces.....	Twist, buttonhole, silk, No. 8, 2-ounce spools, standard make.....	20	b. .63	Do.

a Only.

b Per 1½-ounce spool.

Contracts awarded under advertisement of January 17, 1910, for blankets, dry goods, hats and caps, etc.

DRY GOODS.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
1,601.....	Blankets, wool, single: 54 x 84 inches, indigo-blue, for single beds, to weigh not less than 4 to 4½ pounds each.	205	\$.71	New York.
705.....	68 x 84 inches, indigo-blue, for double beds, to weigh not less than 5½ to 5½ pounds each.	205	\$.71	Do.
1,960.....	54 x 84 inches, scarlet, for single beds, to weigh not less than 4 to 4½ pounds each.	205	\$.71	Do.
932.....	68 x 84 inches, scarlet, for double beds, to weigh not less than 5½ to 5½ pounds each.	205	\$.71	Do.
425.....	54 x 84 inches, white, for single beds, to weigh not less than 4 to 4½ pounds each.	205	\$.71	Do.
417.....	68 x 84 inches, white, for double beds, to weigh not less than 5½ to 5½ pounds each.	205	\$.71	Do.
	Blankets, cotton, single, all cotton, no wool in, 68 x 84 inches, to weigh not less than 3½ pounds. (For double beds):			
292.....	Tan.....	281	1.442	Do.
518.....	Gray.....	281	1.442	Do.
	All cotton, no wool in, 54 x 84 inches, to weigh not less than 3 pounds. (For single beds)—			
734.....	Tan.....	281	1.236	Do.
1,702.....	Gray.....	281	1.236	Do.
	Counterpanes, white:			
360.....	Single.....	78	.82	Do.
680.....	Double.....	243	1.087	Do.
12,910 yards..	Serge, dress, dark blue, 54-inch, all wool.....	243	.7785	Do.
8,615 yards...	Panama, dress, gray, 54-inch.....	20	.564	Chicago.
1,380 yards...	Flannel, red, twilled.....	78	.334	New York.
5,450 yards...	Domett flannel, 30 or 32 inch.....	243	.0795	Do.
8,635 yards...	Muslin, white, 48 x 48 in the gray; 36-inch, bleached, shrunk finish.	20	.0947	Chicago.
74,125 yards..	Hickory shirting, fast colors.....	20	.092169	Do.
104,865 yards..	Gingham, warranted fast colors, good and heavy quality, staple styles, 6 x 6, blue.	78	.0675	New York.
50,904 yards..	Seersucker, assorted patterns, blue, fast colors...	79	.0696	St. Louis.
37,324 yards..	Percale, 80 x 84 count, indigo dye, white-and-black.	78	.0675	New York.
17,067 yards..	Calico, indigo and shirting, and oil red.....	78	{ .0534 .0582 .0582 }	{ Do. Do. Do.
23,650 yards..	White crossbar (for aprons); 27-inch, not under 7½-cent grade, assorted patterns.	281	.104	Do.
60,860 yards..	Outing flannel, fancy.....	99	.114	Do.
37,555 yards..	Shirting (sheeting), ¾, bleached, 84 x 80; 36-inch. Sheetting:	78	.0687	Do.
24,475 yards..	¾, brown, heavy standard, 64 x 68, weight 3.50.	78	.07	Do.
52,120 yards..	¾, brown, standard, heavy.....	78	.1649	Do.
31,110 yards..	¾, brown, standard, heavy.....	78	.2328	Do.
13,510 yards..	Silesia, black and slate, 36 inches wide.....	262	.0949	Do.
	Denim:			
11,080 yards..	Indigo blue, 8-ounce, standard.....	20	.1261	Chicago.
4,220 yards...	Art, green (for table and couch covers).....	20	.15	Do.
1,250 yards...	Bedticking, blue and white stripe, 6-ounce.....	78	.11	New York.
20,980 yards..	Linen, table, 62-inch, cream damask, not under 55-cent grade.	17	.494	Do.
53,060 yards..	Crash, linen, 18-inch, brown, washed; no colored border; not under 11½-cent grade.	281	.1224	Do.
3,070 yards...	Plaid, glass toweling, all linen, 18 to 20 inches wide, not under 11½-cent grade.	281	.1326	Do.
	Oilcloth, table:			
5,355 yards...	¾, white.....	20	.13	Chicago.
2,540 yards...	¾, veined.....	20	.13	Do.
	Opaque, for window shades, assorted colors:			
9,740 yards...	36 inches wide.....	281	.1625	New York.
2,170 yards...	38 inches wide.....	281	.1625	Do.
2,030 yards...	42 inches wide.....	281	.209	Do.
262 yards...	45 inches wide.....	281	.224	Do.
221 yards...	48 inches wide.....	281	.263	Do.
365 yards...	54 inches wide.....	281	.3075	Do.
815 yards...	63 inches wide.....	281	.424	Do.
228 yards...	72 inches wide.....	281	.59	Do.

(* Per pound.

Contracts awarded under advertisement of January 17, 1910, for blankets, dry goods, hats and caps, etc.—Continued.

DRY GOODS—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
2,860.....	Window-shade rollers, with fixtures, complete:	281	\$0.062	New York.
675.....	36 inches wide.....	281	.062	Do.
850.....	38 inches wide.....	281	.078	Do.
106.....	42 inches wide.....	281	.062	Do.
70.....	45 inches wide.....	281	.11	Do.
13.....	48 inches wide.....	281	.17	Do.
42.....	54 inches wide.....	281	.205	Do.
60.....	63 inches wide.....	281	.284	Do.
727 pieces.....	72 inches wide.....	281	.284	Do.
	Mosquito net or bar, blue, white, and green (8 yards to the piece).	165	6174	Do.
	Mittens, woolen, assorted sizes:			
362 doz. prs.....	Boys', mixed gray.....	20	1.88	Chicago.
188 doz. prs.....	Girls', plain colors.....	258	1.95	New York.
190 doz. prs.....	Misses' and women's, plain colors.....	258	2.25	Do.
	Shawls, dark-colored:			
1,855.....	Single, about $\frac{1}{2}$, plaid.....	243	1.732	Do.
870.....	Double, about $\frac{1}{2}$	243	3.465	Do.
4,840.....	Skirts, balmoral, wool, woven, gray only.....	205	.75	Do.
525 dozen.....	Fascinators, woolen, assorted colors.....	243	3.588	Do.
	Handkerchiefs, hemstitched, plain white, linen:			
1,910 dozen.....	Men's, 18 inches square.....	20	.79	Chicago.
1,750 dozen.....	Ladies', 14 inches square.....	20	.535	Do.
750 pounds.....	Cotton bats, full net weight.....	20	.13	Do.
	Additional articles:			
28,056 yards.....	Sheeting, $\frac{1}{2}$, brown, heavy, standard, 48 x 48, weight 2.85.....	78	.075	New York.

UNDERWEAR AND HOSIERY.

11,040.....	Undershirts, men's, balbriggan, light, for summer wear, assorted sizes, 32 to 44.....	114	\$0.35	New York.
10,330 pairs.....	Drawers, men's, balbriggan, light, for summer wear, assorted sizes, 32 to 40.....	114	.35	Do.
10,080.....	Undershirts, men's, merino, or heavy cotton ribbed, for winter wear, assorted sizes, 32 to 44.....	114	.35	Do.
9,110 pairs.....	Drawers, men's, merino, or heavy cotton ribbed, for winter wear, assorted sizes, 32 to 40.....	114	.35	Do.
7,630.....	Undershirts, boys', balbriggan, light, for summer wear, assorted sizes, 24 to 32.....	257	.35	Do.
8,220 pairs.....	Drawers, boys', balbriggan, light, for summer wear, assorted sizes, 24 to 32.....	257	.35	Do.
9,910.....	Undershirts, boys', merino, or heavy cotton ribbed, for winter wear, assorted sizes, 24 to 32.....	114	.33	Do.
9,470 pairs.....	Drawers, boys' merino, or heavy cotton ribbed, for winter wear, assorted sizes, 24 to 32.....	114	.33	Do.
	Union suits, for small boys, assorted sizes, 24 to 28:			
3,710.....	For summer wear.....	86	.33	Chicago.
4,820.....	For winter wear.....	20	(b)	Do.
6,845.....	Union suits, women's, ribbed, knit low neck, sleeveless, for summer wear, 32 to 38 bust measure.....	114	.30	New York.
	Union suits, women's, knit, ribbed, 32 to 38 bust measure:			
6,160.....	For summer wear long sleeves and high neck.....	114	.35	Do.
11,560.....	For winter wear.....	114	.37	Do.
	Union suits, misses', knit, ribbed:			
4,320.....	For summer wear, long sleeves and high neck, 24 to 30 bust measure.....	20	.19	Chicago.
9,460.....	For winter wear, 24 to 30 bust measure.....	114	.345	New York.
	Half-hose, men's, in whole and half sizes:			
400 doz. prs.....	Woolen, sizes 10 $\frac{1}{2}$ –11 $\frac{1}{2}$	168	1.72	St. Louis or Chicago.
870 doz. prs.....	Heavy cotton, sizes 9 $\frac{1}{2}$ –11 $\frac{1}{2}$	19	.90	New York.
1,480 doz. prs.....	Cotton, medium weight, sizes 9 $\frac{1}{2}$ –11 $\frac{1}{2}$	281	1.30	Do.
	Half-hose, boys', in whole and half sizes:			
570 doz. prs.....	Cotton, sizes 9–10.....	20	.78	Chicago.
1,030 doz. prs.....	Heavy cotton, sizes 8, 9, and 10.....	14	.775	New York.
2,770 doz. prs.....	Hose, boys', heavy cotton, ribbed, black, sizes 7–9, in whole and half sizes.....	281	2.03	Do.
	Hose, women's, sizes 9–10, in whole and half sizes, heavy cotton, black.....	14	1.80	Do.
2,503 doz. prs.....	Hose, misses', cotton, black, regular made, good quality, fast dye.....	165	2.05	Do.
855 doz. prs.....	Stocking feet, sizes 6 $\frac{1}{2}$ –10, in whole and half sizes.....	79	.425	St. Louis.

* Only.

† Size 24, .255; size 26, .275; size 28, .295. All No. 1.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

BOOTS AND SHOES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
1,500 pairs....	Shoes, good quality:			
7,750 pairs....	Little gents', Nos. 9 to 12.....	306	\$1.03	St. Louis.
14,210 pairs....	Youths', Nos. 12½ to 2.....	306	1.21	Do.
8,810 pairs....	Boys', Nos. 2½ to 5½.....	38	1.36	Do.
950 pairs....	Men's, Nos. 6 to 13.....	306	1.62	Do.
2,110 pairs....	Children's, Nos. 5 to 8.....	292	.80	Do.
11,460 pairs....	Children's, Nos. 8½ to 11½.....	118	.935	New York.
13,080 pairs....	Misses', Nos. 12 to 2.....	184	1.075	St. Louis.
	Women's, Nos. 2½ to 8.....	306	1.31	Do.

MEDICAL SUPPLIES.

	Medicines:			
	Acids—			
616 ounces....	Acetic, c. p., in 8-oz. bottles.....	176	\$0.01	St. Louis.
8,800 ounces....	Boric, powd., in 4-oz. bottles.....	176	.012	Do.
8,260 ounces....	Carbolic, pure, 95 per cent liquid, in 8-oz. bottles.....	177	.011	Do.
640 ounces....	Citric, in 8-oz. bottles.....	286	¢ .03	Omaha.
60 ounces....	Galle, in 4-oz. bottles.....	176	¢ .03	St. Louis.
60 ounces....	Hydrocyanic, U. S. P., dilute, in 1-oz. bottles.....	163	.04	Do.
176 pounds....	Hydrochloric, c. p., in 1-lb. g. s. bottles....	177	.19	Do.
680 ounces....	Nitric, c. p., in 8-oz. g. s. bottles.....	286	¢ .0175	Omaha.
370 ounces....	Phos., dilute, U. S. P., in 8-oz. g. s. bottles.....	163	¢ .014	St. Louis.
770 ounces....	Salicylic, powd., in 8-oz. bottles.....	176	.015	Do.
1,350 ounces....	Sulphuric, c. p., in 8-oz. g. s. bottles.....	163	.02825	Do.
62 bottles....	Sulphuric, aromatic, U. S. P., in 1-pint g. s. bottles.....	163	.015	Do.
440 ounces....	Tannic, pure, powd., in 8-oz. bottles.....	286	.42	Omaha.
55 pounds....	Tartaric, powd., in 1-lb. bottles.....	163	.04625	St. Louis.
540 ounces....	Fluid extracts, U. S. P.—	177	.33	Do.
112 bottles....	Belladonna, in 4-oz. bottles.....	286	¢ .04	Omaha.
156 ounces....	Buchu, in 1-pint bottles.....	199	.80	New York, Chicago, or St. Louis.
366 bottles....	Cannabis indica, in 4-oz. bottles.....	199	.12	Do.
380 ounces....	Cascara sagrada, in 1-pint bottles.....	199	1.60	Do.
226 bottles....	Cimicifuga (racemosa), in 4-oz. bottles....	286	¢ .04	Omaha.
1,350 ounces....	Cinchona (with aromatics), in 1-pint bottles.....	286	¢ .50	Do.
292 bottles....	Ergot, in 8-oz. bottles.....	199	.05	Chicago, New York, or St. Louis.
477 bottles....	Ginger, in 1-pint bottles.....	286	¢ .65	Omaha.
242 bottles....	Glycyrrhiza, in 1-pint bottles.....	199	.30	Chicago, New York, or St. Louis.
830 ounces....	Hydrastis, colorless, in 1-pint bottles....	199	.50	Do.
200 bottles....	Ipecac, in 8-oz. bottles.....	286	¢ .10	Omaha.
153 bottles....	Rhubarb, compound, in 1-pint bottles....	286	¢ .73	Do.
138 bottles....	Senna, in 1-pint bottles.....	286	¢ .38	Do.
133 bottles....	Stigmata maydis, in 1-pint bottles.....	286	¢ .30	Do.
204 bottles....	Taraxacum, in 1-pint bottles.....	286	¢ .40	Do.
66 bottles....	Triticum, in 1-pint bottles.....	199	.26	Chicago, New York, or St. Louis.
2,580 ounces....	Valerian, in 1-pint bottles.....	286	¢ .50	Omaha.
24 ounces....	Viburnum, in 8-oz. bottles.....	286	f. 0375	Do.
56 ounces....	Solid extracts, U. S. P.—			
202 pounds....	Cannabis indica, in ounce jars.....	286	¢ .65	Do.
114 tubes....	Colocynth, compound, powd., in 8-oz. bottles.....	286	¢ .055	Do.
508 tubes....	Extract of glycyrrhiza, in sticks.....	176	.20	St. Louis.
184 tubes....	Hypodermic tablets—			
214 tubes....	Aconitine, ½ gr., in tubes of 25.....	286	¢ .025	Omaha.
368 tubes....	Anæsthetic, local, in tubes of 25, for extracting teeth.....	286	¢ .06	Do.
257 tubes....	Apomorphine, hydrochlorate, ⅙ gr., in tubes of 25.....	199	.08	Chicago, New York, or St. Louis.
155 tubes....	Atropine, sulph., ⅙ gr., in tubes of 25.....	286	¢ .025	Omaha.
	Cocaine, hydrochlorate, ⅙ gr., in tubes of 25.....	286	¢ .05	Do.
	Digitalin, ⅙ gr., in tubes of 25.....	199	.03	Chicago, New York, or St. Louis.
	Hyoscyamine, ⅙ gr., in tubes of 25.....	199	.035	Do.

¢ Awarded 528 ounces.

¢ Awarded 96 ounces.

¢ Awarded 328 ounces.

¢ Awarded 304 ounces.

¢ Wyeth's.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Medicines—Continued.			
	Hypodermic tablets—Continued.			
774 tubes.....	Morphia, $\frac{1}{2}$ gr., atropine, $\frac{1}{16}$ gr., in tubes of 25.	199	\$0.06	St. Louis.
660 tubes.....	Morphia, sulph., $\frac{1}{2}$ gr. each, in tubes of 25.	199	.0475	Do.
260 tubes.....	Nitroglycerin, $\frac{1}{16}$ gr., in tubes of 25.....	286	.02	Omaha.
158 tubes.....	Pilocarpine, hydrochlorate, $\frac{1}{2}$ gr., in tubes of 25.	199	.055	Chicago, New York, or St. Louis.
513 tubes.....	Strychnine, nitrate, $\frac{1}{16}$ gr., in tubes of 25.	286	.0225	Omaha.
404 tubes.....	Strychnine, sulph., $\frac{1}{16}$ gr., in tubes of 25.	286	.0225	Do.
	Tablet triturates—			
157 bottles...	Aconitine, $\frac{1}{16}$ gr., in bottles of 100.....	286	.045	Do.
194 bottles...	Aconitine, $\frac{1}{16}$ gr., in bottles of 100.....	199	.055	Chicago, New York, or St. Louis.
90 bottles.....	Alotin, $\frac{1}{16}$ gr., in bottles of 100.....	286	.045	Omaha.
233 bottles.....	Arsenic, iodide, $\frac{1}{16}$ gr., in bottles of 100.....	286	.045	Do.
182 bottles...	Atropine, sulphate, $\frac{1}{16}$ gr., in bottles of 100.	199	.0515	Chicago, New York, or St. Louis.
147 bottles...	Benzolic acid, $\frac{1}{2}$ gr., in bottles of 100.....	286	.0475	Omaha.
384 bottles...	Caffein, citrate, $\frac{1}{2}$ gr., in bottles of 100.....	286	.055	Do.
600 bottles...	Calcium sulphide, $\frac{1}{2}$ gr., in bottles of 100.	199	.045	Chicago, New York, or St. Louis.
277 bottles...	Calomel and sodium (calomel $\frac{1}{2}$ gr., sodium bicarb. 1 gr.), in bottles of 100.	199	.0415	Do.
376 bottles...	Same as above, in bottles of 500.....	199	.075	Do.
100 bottles.....	Calomel and sodium (calomel 1 gr., sodium bicarb. 1 gr.), in bottles of 100.	286	.05	Omaha.
302 bottles.....	Same as above, in bottles of 500.....	199	.135	New York, Chicago, or St. Louis.
177 bottles.....	Cascara sagrada, 1 gr., in bottles of 100.....	199	.06	Do.
300 bottles.....	Same as above, in bottles of 500.....	199	.105	Do.
241 bottles.....	Cerium oxalate, 1 gr., in bottles of 100.....	199	.0475	Do.
26 bottles.....	Colocynth, comp., $\frac{1}{2}$ gr., in bottles of 100.....	286	.05	Omaha.
33 bottles.....	Same as above, in bottles of 500.....	177	.0475	St. Louis.
		199	.12	Chicago, New York, or St. Louis.
	Codeine, without sugar—			
442 bottles.....	$\frac{1}{2}$ gr., in bottles of 100.....	199	.18	Do.
628 bottles.....	$\frac{1}{2}$ gr., in bottles of 100.....	199	.28	Do.
82 bottles.....	Colchicine, $\frac{1}{16}$ gr., in bottles of 100.....	199	.095	Do.
172 bottles.....	Copper arsenite, $\frac{1}{16}$ gr., in bottles of 100.....	199	.045	Do.
109 bottles.....	Corrosive sublimate, $\frac{1}{16}$ gr., in bottles of 100.	199	.0475	Do.
	Digitalin, pure—			
86 bottles.....	$\frac{1}{16}$ gr., in bottles of 100.....	199	.05	Do.
190 bottles.....	$\frac{1}{16}$ gr., in bottles of 100.....	199	.055	Do.
116 bottles.....	Dovers powder, 1 gr., in bottles of 100.....	199	.0575	Do.
226 bottles.....	Same as above, in bottles of 500.....	199	.14	Do.
145 bottles.....	Hydrastin, $\frac{1}{16}$ gr., in bottles of 100.....	286	.05	Omaha.
76 bottles.....	Lithium carbonate, 1 gr., in bottles of 100.	199	.055	Chicago, New York, or St. Louis.
39 bottles.....	Same as above, in bottles of 500.....	199	.1225	Do.
221 bottles.....	Podophyllin, $\frac{1}{2}$ gr., in bottles of 100.....	286	.05	Omaha.
82 bottles.....	Salicylic acid, 1 gr., in bottles of 100.....	164	.045	New York.
109 bottles.....	Same as above, in bottles of 500.....	199	.105	Chicago, New York, or St. Louis.
66 bottles.....	Santonine and calomel (santonine $\frac{1}{2}$ gr., calomel $\frac{1}{2}$ gr.), in bottles of 100.	199	.08	Do.
71 bottles.....	Same as above, in bottles of 500.....	199	.25	Do.
276 bottles.....	Strychnine arsenate, $\frac{1}{16}$ gr., in bottles of 100.	286	.05	Omaha.
122 bottles.....	Strychnine, nitrate, $\frac{1}{16}$ gr., in bottles of 100.	164	.045	New York.
151 bottles.....	Same as above, in bottles of 500.....	199	.105	Chicago, New York, or St. Louis.
141 bottles.....	Strychnine, sulphate, $\frac{1}{16}$ gr., in bottles of 100.	199	.0475	Do.
257 bottles.....	Same as above, in bottles of 500.....	199	.0925	Do.
48 bottles.....	Tartar emetic, $\frac{1}{2}$ gr., in bottles of 100.....	199	.045	Do.
12 bottles.....	Same as above, in bottles of 500.....	199	.08	Do.
400 bottles.....	Terpin hydrate, 2 gr., heroin, $\frac{1}{16}$ gr., in bottles of 500.	199	.34	Do.

^a Wyeth's.

^b Awarded 12 bottles.

^c Awarded 14 bottles—Meyer Bros. Drug Company brand.

^d Maltbie Chemical Company's brand.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Medicines—Continued.			
	Tablet triturates—Continued.			
70 bottles.....	Zinc, phosphide, $\frac{1}{4}$ gr., in bottles of 100....	286	¢ 0.05	Omaha, Chicago, New York, or St. Louis.
400 bottles.....	Zinc, sulphocarbonate, $\frac{1}{4}$ gr., in bottles of 100.	199	.0475	
1,950 bottles..	Compressed tablets— Acetanilid, compound, 5 gr. tablets (100 in bottle). (Formula: $\frac{3}{4}$ grs. acetanilid; $\frac{1}{8}$ gr. bicarb. soda; $\frac{1}{8}$ gr. brom. soda, and $\frac{1}{4}$ gr. cit. caffein, or $\frac{1}{4}$ gr. pure caffein).	199	.075	Do.
332 bottles....	Antiseptic, nasal, in bottles of 500.....	199	.145	Do.
672 bottles....	Bronchial (ammon. chloride $\frac{1}{4}$ gr.; ext. glycyrrhiza 1 gr.; oleoresin cubeb $\frac{1}{4}$ m.; powd. hyoscyamus $\frac{1}{4}$ gr.; powd. senega $\frac{1}{4}$ gr.; powd. ipecac $\frac{1}{4}$ gr.; balsam tolu $\frac{1}{4}$ gr.), in bottles of 500.	199	.16	Do.
292.....	Charcoal, 5 gr., in bottles of 500.....	177	.11	St. Louis.
250 bottles....	Corrosive sublimate, blue, for external use (formula: mercuric chloride corrosive $7\frac{1}{2}$ gr., citric acid $3\frac{1}{4}$ gr.), in bottles of 25.	25	.06	Chicago, New York, or St. Louis.
120 bottles....	Same as above, in bottles of 100.....	286	¢ 4.18	Omaha, St. Louis, Chicago, New York, or St. Louis.
170 bottles....	Same as above, in 1-lb. bottles.....	177	¢ 18	
74 bottles.....	Cresote, beechwood, 1 minim, in bottles of 100.	25	.65	Omaha.
49 bottles.....	Same as above, in bottles of 500.....	286	¢ .06	Chicago, New York, or St. Louis.
77 bottles.....	Same as above, in bottles of 1,000....	199	.175	Do.
96 bottles.....	Cubeb, compound (powdered cubeb $\frac{1}{4}$ gr., dried ferrous sulphate $\frac{1}{4}$ gr., copaiba mass $\frac{1}{4}$ gr., Venice turpentine $\frac{1}{4}$ gr., oil sandal $\frac{1}{4}$ minim, oil gaultheria $\frac{1}{4}$ minim), in bottles of 100.	199	.31	Do.
48 bottles.....	Same as above, in bottles of 500.....	199	.065	Do.
68 bottles.....	Same as above, in bottles of 1,000....	199	.18	Do.
764 bottles....	Diarrhea: (Norman Grey): (powd. opium $\frac{1}{4}$ grain; aromatic powder $\frac{1}{4}$ gr.; camphor $\frac{1}{4}$ gr.; bismuth subnit. $\frac{1}{4}$ gr.; sodium bicarb. $\frac{1}{4}$ gr.; powd. kino $\frac{1}{4}$ gr.; mercury with chalk $\frac{1}{4}$ gr.), in bottles of 100.	199	.32	Do.
161 bottles....	Ergotine, 2 gr., in bottles of 100.....	199	.125	Do.
950 bottles....	Lithium, citrate, in 5-gr. effervescent tablets, in bottles of 40.	199	.102	Do.
224 bottles....	Potassium chlorate, 5 gr., in bottles of 500.	25	.0825	Do.
96 bottles.....	Potassium permanganate, $\frac{1}{4}$ gr., in bottles of 100.	25	.12	Do.
81 bottles.....	Same as above, in bottles of 500.....	25	.04	Do.
179 bottles....	Quinine, sulphate, 1 gr., in bottles of 100..	25	.10	Do.
110 bottles....	Same as above, in bottles of 500.....	199	.0825	Do.
158 bottles....	Same as above, in bottles of 1,000....	199	.265	Do.
1,250 bottles..	Quinine, sulphate, 3 gr., in bottles of 100..	199	.485	Do.
146 bottles....	Rennet, in bottles of 100.....	199	.15	Do.
806 bottles....	Salol, in 5-gr. tablets; in bottles of 100....	286	¢ .10	Omaha, Do.
325 bottles....	Sodium chloride, for normal salt solution, in bottles of 100.	199	¢ .125	
345 bottles....	Sodium salicylate, 5 gr., in bottles of 500.	286	¢ .27	Chicago, New York, or St. Louis.
120 bottles....	Sulfonal, 5 gr., in bottles of 100.....	199	1.58	Omaha, Chicago, New York, or St. Louis.
	Elixirs, etc.—			
1,200 bottles..	Aromatic elixir, U. S. P., in 1-pint bottles.	286	.175	Omaha.
460 bottles....	Buchu and acetate of potassium, elixir of, in 1-pint bottles.	177	.3475	St. Louis.
1,870 bottles..	Cod liver oil, emulsion of— Simple, U. S. P., in 1-pint bottles....	199	.23	Chicago, New York, or St. Louis.
2,790 bottles..	With hypophosphites and cresote, in 1-pint bottles.	199	.23	Do.
1,214 bottles..	Iron, quinine, and strychnine, elixir of, in 1-pint bottles.	199	.22	Do.

¢ Wyeth.

¢ Awarded 42 bottles.

¢ Awarded 28 bottles.

¢ Awarded 40 bottles.

¢ Awarded 81 bottles.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Medicines—Continued.			
1,450 bottles...	Elxirs, etc.—Continued.			
	Pepsin, elxir of, national formulary, in 1-pint bottles.	199	\$0.2325	Chicago, New York, or St. Louis.
410 bottles....	Sodium bromide, elxir of, in 1-pint bottles.	25	.18	Do.
860 bottles....	Terpine hydrate and heroin, elxir of, in 1-pint bottles.	199	.45	Do.
	Oils—			
395 ounces....	Cade, in 4-oz. bottles.....	176	\$.02	St. Louis.
1,523 bottles...	Castor, cold-pressed, in 1-quart bottles....	286	\$.28	Omaha.
		176	\$.28	St. Louis.
750 ounces....	Cloves, in 2-oz. bottles.....	176	\$.0675	Do.
2,390 bottles....	Cod-liver, U. S. P., in 1-pint bottles.....	177	\$.17	Do.
1,410 bottles....	Cotton-seed, refined, in 1-pint bottles.....	286	.13	Omaha.
50 ounces....	Croton, in 1-oz. bottles.....	176	\$.0725	St. Louis.
124 ounces....	Cubebs, in 4-oz. bottles.....	35	\$.13	New York.
261 ounces....	Eucalyptus, in 1-oz. bottles.....	176	\$.065	St. Louis.
1,500 ounces....	Gaultheria (synthetic), in 1-oz. bottles.....	35	\$.0475	New York.
881 bottles....	Limesd, raw, in 1-pint bottles.....	286	.13	Omaha.
160 ounces....	Male fern, ethereal, in 2-oz. bottles.....	286	\$.135	Do.
353 bottles....	Organum, best commercial, in 1-pint bottles.	35	.20	New York.
735 ounces....	Peppermint, U. S. P., in 4-oz. bottles....	35	\$.1475	Do.
313 ounces....	Sandalwood, East India, in 4-oz. bottles....	176	\$.22	St. Louis.
1,465 bottles....	Turpentine, in 1-quart bottles.....	35	.235	New York.
	Pills			
395 bottles....	Aloin, compound (aloin $\frac{1}{2}$ gr.; belladonna $\frac{1}{4}$ gr.; strychnine $\frac{1}{16}$ gr.), in bottles of 500.	199	.145	Chicago, New York, or St. Louis.
162 bottles....	Asafetida, 1 gr., in bottles of 100.....	286	\$.05	Omaha.
256 bottles....	Camphor and opium (camphor, 2 gr.; opium, 1 gr.), in bottles of 100.	286	\$.19	Do.
392 bottles....	Cathartic, vegetable, U. S. P., in bottles of 500.	286	\$.36	Do.
525 bottles....	Comp. cathartic, U. S. P., in bottles of 500.	286	\$.32	Do.
36 bottles....	Copaiba mass, 3 gr., in bottles of 500.....	286	\$.23	Do.
392 bottles....	Emmenagogue, imp., U. S. P., in bottles of 100.	199	.10	Chicago, New York, or St. Louis.
425 bottles....	Iron carbonate, U. S. P., in bottles of 100.	286	\$.05	Omaha.
123 bottles....	Iodoform, 1 gr., in bottles of 100.....	286	\$.09	Do.
432 bottles....	Mercury (green iodide), $\frac{1}{2}$ gr. each, in bottles of 100.	286	\$.05	Do.
734 bottles....	Phosphorus, compound (phosphorus $\frac{1}{2}$ gr.; iron, reduced, 3 gr.; quinine $\frac{1}{2}$ gr.; strychnine, $\frac{1}{16}$ gr.), in bottles of 100.	286	\$.10	Do.
	Tinctures—			
1,540 ounces...	Aconite, rad., U. S. P., in 8-oz. bottles....	199	.03	Chicago, New York, or St. Louis.
550 bottles....	Arnica, U. S. P., in 1-quart bottles.....	176	\$.54	St. Louis.
700 ounces....	Belladonna, U. S. P., in 4-oz. bottles.....	199	\$.0275	Chicago, New York, or St. Louis.
200 bottles....	Benzoin, compound, in 1-pint bottles....	286	\$.48	Omaha.
228 ounces....	Cantharides, U. S. P., in 4-oz. bottles....	286	\$.0375	Do.
986 ounces....	Capsicum, in 4-oz. bottles.....	286	\$.03	Do.
822 ounces....	Digitalis, U. S. P., in 4-oz. bottles.....	199	.03	Chicago, New York, or St. Louis.
256 ounces....	Gelsemium, U. S. P., in 4-oz. bottles....	199	.03	Do.
462 bottles....	Gentian, compound, U. S. P., in 1-pint bottles.	25	.29	Do.
560 ounces....	Guaiaac, ammoniated, U. S. P., in 8-oz. bottles.	176	\$.0275	St. Louis.
292 bottles....	Iodine, U. S. P., in 1-pint g. s. bottles....	164	\$.73	New York.
138 bottles....	Chloride of iron, U. S. P., in 1-pint g. s. bottles.	176	\$.355	St. Louis.
610 ounces....	Myrrh, in 8-oz. bottles.....	164	\$.0325	New York.
1,450 ounces...	Nux vomica, U. S. P., in 8-oz. bottles....	199	.0275	Chicago, New York, or St. Louis.
660 bottles....	Opium, camphorated, U. S. P., in 1-pint bottles.	199	.32	Do.

• Fritzsche Bros.

• Awarded 912 bottles.

• Awarded 613 bottles.

• P. W. R.

• U. S. P.

• Antoine Cherco.

• Wyeth.

• J. S. Merrell brand.

• R. D. Co's.

• Meyer Bros. Drug. Co.

• Maltbie Chemical Company brand.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Medicines—Continued.			
	Tinctures—Continued.			
200 bottles....	Opium, U. S. P. (laudanum), in 1-pint bottles.	25	\$0.90	St. Louis.
176 ounces....	Veratrum viride, U. S. P., in 4-oz. bottles.	199	.0425	Do.
268 ounces....	Strophanthus, U. S. P., in 4-oz. bottles..	199	.0375	Do.
	Powdered, select—			
90 ounces....	Galls, powd., in 4-oz. bottles	286	.02	Omaha.
135 pounds....	Licorice, compound powd., in 1-lb. bottles.	286	.13	Do.
280 ounces....	Opium, U. S. P. in 8-oz. bottles	163	.40	St. Louis.
260 ounces....	Powder of opium, compound, U. S. P. (Dover's powder), in 8-oz. bottles.	177	.0675	Do.
145 ounces....	Rhubarb, in 4-oz. bottles.	176	.024	Do.
	Miscellaneous—			
440 ounces....	Acetanilid, powd., in 4-oz. bottles	163	.025	Do.
285 ounces....	Acetphenetidinum, powd., in 1-oz. bottles.	286	.07	Omaha.
268 pounds...	Adeps lanæ, anhydrous, in 1-lb. cans...	176	.17	St. Louis.
2,090 bottles...	Alcohol, U. S. P., in 1-quart bottles.	286	.74	Omaha.
476 gallons...	Alcohol, methyl (wood), in 5-gal. flat-top jacketed cans.	286	.58	Do.
	Alum, in 1-lb. bottles—			
143 pounds...	Crystals	286	.065	Do.
160 pounds...	Granulated	286	.065	Do.
	Ammonium—			
2,930 ounces...	Bromide of, granulated, in 8-oz. bottles.	177	.0225	St. Louis.
482 ounces....	Carbonate of, hard lumps, in 8-oz. bottles.	163	.01375	Do.
218 pounds...	Chloride of, granulated, pure, in 1-lb. bottles.	286	.12	Omaha.
71 bottles....	Amyl, nitrite, pearls of (5 drops each), in bottles of 25.	199	.45	Chicago, New York, or St. Louis.
207 ounces....	Antipyrine	163	.16	St. Louis.
303 ounces....	Argyrol, in 1-oz. bottles	286 25	a 1.30 b 1.30	Omaha.
17 ounces....	Atropine, sulphate, crystals, in ½-oz. bottles.	163	3.80	Chicago, New York, or St. Louis.
705 ounces....	Balsam, Peru, in 2-oz. bottles	286	.115	Omaha.
	Bismuth in 8-oz. bottles—			
2,245 ounces...	Subnitrate of, U. S. P.	163	.11	St. Louis.
575 ounces....	Subgallate	163	.10	Do.
330 pounds...	Borax, powd., in 1-lb. bottles	286	.0925	Omaha.
445 bottles....	Calcium oxide, powd., U. S. P., in bottles (size to make 1 gal. lime water), Lilly's or equal.	286 176	c d .075 e .075	Do.
	Cataplasms, kaolin—			
680 pounds...	In 1-lb. tins	35	.1395	New York.
296 pounds...	In ½-lb. tins	35	.19	Do.
	Cerate, in 1-lb. jars, with cover—			
144 pounds...	Resin	286	.22	Omaha.
142 pounds...	Simple (ointment)	286	.30	Do.
776 ounces....	Chalk, prepared, in 8-oz. bottles	286	.00875	Do.
572 ounces....	Chloral, hydrate of, crystals, in 4-oz. g. s. bottles.	163	.07	St. Louis.
1,570 ounces...	Chlorodyne, in 8-oz. g. s. bottles	199	.06	Chicago, New York, or St. Louis.
446 pounds...	Chloroform, purified, in 1-lb. bottles	163	f .38	St. Louis.
58 ounces....	Cocaine, hydrochlorate, in ½-oz. bottles..	176	3.40	Do.
166 pounds...	Cocculus indicus, in 1-lb. bottles	286	.11	Omaha.
120 pounds...	Cocoa butter, in ½-lb. cakes	286	.30	Do.
830 ounces....	Collodion, in 1-oz. bottles	286	g .04	Do.
58 pounds....	Copaiba, balsam of, U. S. P., in 1-lb. bottles.	177 286	h .04 i .49	St. Louis.
208 ounces....	Copper, sulphate of, in 4-oz. bottles	286	.01	Do.
74 dozen....	Copper sulphate pencils	177	1.10	St. Louis.
450 ounces....	Cresote, beechwood, 1-oz. bottles	286	.06	Omaha.
338 pounds...	Ether, sulph., stronger, for anesthesia, in 1-lb. tins.	163	f .23	St. Louis.

a Awarded 142 ounces.

b Awarded 161 ounces.

c Lilly's.

d Awarded 242 bottles.

e Awarded 202 bottles.

f Mallinckrodt Chemical Works brand.

g Awarded 460 ounces.

h Awarded 368 ounces.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Medicines—Continued.			
	Miscellaneous—Continued.			
825 tubes.....	Ethyl chloride, in tubes of 10 grammes (local anesthesia).....	286	\$0.15	Omaha.
1,445 bottles.....	Glycerin, pure, in 1-pint bottles.....	286	.27	Do.
282 ounces.....	Gualacol carbonate, in 1-oz. bottles.....	177	.15	St. Louis.
27 pounds.....	Gum arabic, No. 1, powd., pure, in 1-lb. bottles.....	286	.23	Omaha.
493 pounds.....	Gum camphor, in 1-lb. tins.....	25	.48	Chicago, New York, or St. Louis.
436 ounces.....	Hexamethylenamina (urotropin) in 1-oz. bottles.....	{ 286 177	{ \$.075 .075	{ Omaha. St. Louis.
1,550 bottles.....	Hydrogen peroxide, nonexplosive.....	163	.14	Do.
132 bottles.....	Ichthyol, in 1-pint bottles.....	286	3.24	Omaha.
100 ounces.....	Iodine, resublimed, in 2-oz. g. s. bottles.....	163	.19	St. Louis.
660 ounces.....	Iodoform, powd., in 4-oz. bottles.....	163	.1875	Do.
83 pounds.....	Lead, acetate of, gran., pure, in 1-lb. bottles.....	286	.16	Omaha.
1,200 bottles.....	Liquor antisepticus, U. S. P. 1900, in 1-pint bottles.....	286	.145	Do.
400 bottles.....	Liquor cresolis comp., U. S. P., in 1-pint bottles.....	164	.15	New York.
456 ounces.....	Magnesia, carbonate, in 4-oz. papers.....	{ 286 177	{ \$.00875 .0085	{ Omaha. St. Louis.
5,230 pounds.....	Magnesia, sulphate of, in 10-lb. tins.....	176	.024	Do.
418 ounces.....	Menthol, in 1-oz. bottles.....	286	.20	Omaha.
250 ounces.....	Mercury, ammoniated, in 1-oz. bottles.....	286	.09	Do.
116 ounces.....	Mercury with chalk, in 4-oz. bottles.....	163	.035	St. Louis.
261 ounces.....	Mercury— Cor. chlo. of, pure (corrosive sub.), small crystals or granulated, in 4-oz. bottles.....	286	.055	Omaha.
604 ounces.....	Mild chloride of, U. S. P. (calomel), in 4-oz. bottles.....	{ 286 163	{ \$.065 .065	{ Do. St. Louis.
130 ounces.....	Yellow oxide of, powd., in 1-oz. bottles.....	177	.10	Do.
850 pounds.....	Milk, malted, in 1-lb. bottles.....	176	.64125	Do.
45 ounces.....	Morphia, sulphate of, in 1-oz. bottles.....	164	\$.25	New York.
365 pounds.....	Ointment, mercurial, U. S. P., in 1-lb. tins, with cover.....	286	.56	Omaha.
1,072 ounces.....	Ointment of nitrate of mercury, U. S. P. (citrine ointment), in 8-oz. pots, with cover.....	163	.02875	St. Louis.
660 pounds.....	Ointment, zinc oxide, benzoated, in 1-lb. jars.....	25	.28	Chicago, New York or St. Louis.
1,000 ounces.....	Peppin, saoch., U. S. P., in 4-oz. bottles.....	199	.055	Do.
83 tubes.....	Physoctigmine, salicylate, in 10-grain tubes.....	163	.40	St. Louis.
4,100 pounds.....	Petrolatum, 112° F. melting point, light-colored, in 1-lb. cans.....	{ 286 177	{ \$.059 \$.06875	{ Omaha. St. Louis.
38 dozen cans.....	Pisels liquida, in 1-pt. cans.....	286	.45	Omaha.
	Potassium—			
57 pounds.....	Acetate of, in 1-lb. bottles.....	177	.2425	St. Louis.
40 pounds.....	Bicarb., in 1-lb. bottles.....	{ 286 177	{ \$.15 .15	{ Omaha. St. Louis.
160 pounds.....	Bitar. of, pure, powd. (cream of tartar), in 1-lb. bottles.....	286	.28	Omaha.
1,080 ounces.....	Bromide of, gran., in 8-oz. bottles.....	177	.018	St. Louis.
86 ounces.....	Caustic, purified sticks, in 1-oz. bottles.....	{ 286 177	{ .03 .03	{ Omaha. St. Louis.
110 pounds.....	Chlorate of, powd., in 1-lb. bottles.....	177	.1475	Do.
187 pounds.....	Iodide of, gran., in 1-lb. bottles.....	163	1.93	Do.
83 pounds.....	Nitrate of (saltpeter), powd., in 1-lb. bottles.....	286	.11	Omaha.
1,430 pounds.....	Permanganate, in 1-lb. bottles.....	286	.145	Do.
513 pounds.....	And sodium tartrate (Rochelle salt), powd., in 1-lb. bottles.....	176	.225	St. Louis.
425 ounces.....	Quassia chips, in 1-oz. packages.....	286	.01	Omaha.
672 ounces.....	Quinine, sulphate of, in 1-oz. bottles.....	163	.21	St. Louis.
326 ounces.....	Resorcin, in 1-oz. bottles.....	177	.0925	Do.

* Awarded 244 ounces.

* Awarded 238 ounces.

* Awarded 272 ounces.

* Awarded 184 ounces.

* Awarded 220 ounces.

† Awarded 384 ounces.

* March & Co. brand.

† Awarded 2,350 pounds.

† Awarded 1,729 pounds.

† Awarded 31 pounds.

* Awarded 18 pounds.

† Awarded 52 ounces.

* Awarded 34 ounces.

* Brunswick-Mallinckrodt brand.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Medicines—Continued.			
	Miscellaneous—Continued.			
21 ounces.....	Santonin, in 1-oz. bottles.....	286	\$0.65	Omaha.
294 pounds...	Senna leaves, in 1-lb. packages.....	163	2.65	St. Louis.
	Silver nitrate, in 1-oz. bottles—	177	¢.085	Do.
52 ounces.....	Fused.....	163	.40	Do.
57 ounces.....	Crystals.....	163	.37	Do.
	Sodium—			
373 pounds...	Bicarb., powd., in 1-lb. bottles.....	286	4.06	Omaha.
	Bromide, gran., in 8-oz. bottles.....	177	¢.06	St. Louis.
1,040 ounces...	Phosphate, in 4-oz. bottles.....	163	¢.02187	Do.
1,920 ounces...	Salkyate, powd., in 8-oz. w. m. bottles.....	286	¢.01125	Omaha.
1,200 ounces...		163	¢.0275	St. Louis.
	Solution—			
1,250 bottles..	Of ammonia, 10 per cent, in 1-quart g. s. bottles.....	286	.19	Omaha.
1,060 ounces..	Arsenite of potassa, U. S. P. (Fowler's solution), in 8-oz. bottles.....	286	1.0075	Do.
384 ounces.....	Iodide of arsenic and mercury, U. S. P. (Donovan's solution), in 8-oz. bottles.....	177	¢.0075	St. Louis.
		176	.012	Do.
185 ounces.....	Subsulphate of iron, U. S. P., in 4-oz. g. s. bottles.....	163	.025	Do.
268 bottles....	Spirits ammonia, aromatic, U. S. P., in 1-pint g. s. bottles.....	286	.365	Omaha.
	Ether—			
75 bottles.....	Comp., U. S. P., (Hoffman's anodyne), in 1-pint bottles.....	177	.50	St. Louis.
313 bottles....	Nitrous, U. S. P. (sweet spirits of niter), in 1-pint bottles.....	25	.43	Chicago, New York, or St. Louis.
720 pounds...	Sulphur, washed, in 1-lb. bottles.....	177	.11	St. Louis.
644 bottles....	Suppositories, glycerin, each wrapped in tin foil, or paraffined, in bottles of 12.	177	.07	Do.
	Sirup—			
2,825 bottles..	Hypophos. lime, soda and potash, U. S. P., in 1-pint bottles.....	199	.1825	Chicago, New York, or St. Louis.
4,360 ounces..	Iodide of iron, U. S. P., in 4-oz. bottles.....	199	.0225	Do.
2,820 ounces..	Rhubarb and potassium, compound (N. F.), in 8-oz. bottles.....	164	1.01	New York.
822 bottles....	Squill, U. S. P., in 1-pint bottles.....	164	1.125	Do.
1,360 bottles..	White pine, compound, in 1-quart bottles.....	176	.295	St. Louis.
24,320 ounces.	Wild cherry, U. S. P., in 4-oz. bottles.....	286	4.0125	Omaha.
202 ounces....	Terebenthum, in 1-oz. bottles.....	177	.055	St. Louis.
416 pounds...	Vaseline, liquid (or liquid petrolatum) in 1-lb. sealed cans.....	177	.14	Do.
41 bottles.....	Wine colchicum, rad., U. S. P., in 1-pint bottles.....	199	.30	Chicago, New York, or St. Louis.
	Zinc—			
60 ounces.....	Acetate of, in 2-oz. bottles.....	286	1.025	Omaha.
1,944 ounces..	Oxide of, in 8-oz. bottles.....	177	1.025	St. Louis.
464 ounces....	Sulphate of, in 8-oz. bottles.....	35	.01	New York.
		286	.0075	Omaha.
	Instruments:			
150 cartons...	Applicators, wood, for nose and throat, in cartons of 72 dozen.....	286	.25	Do.
7.....	Aspirators.....dozen.....	25	1.37	Chicago, New York, or St. Louis.
	Atomizers—			
440.....	Hand.....	177	1.27	St. Louis.
260.....	Hand (good quality), suitable for oils.....	290	.42	Chicago or New York.
25.....	Bags, obstetrical, all leather, 18 inches long, metal frame, with four 2-ounce wide-mouth bottles; to have clamp to hold bag open when in use.....	176	4.50	St. Louis.
82.....	Bedpans, earthenware, yellow.....	176	4.35	Do.
66.....	Douche pans, white enamel.....	25	.80	Chicago, New York, or St. Louis.

¢ Awarded 10 ounces.

¢ Awarded 11 ounces.

¢ Small.

¢ Awarded 246 pounds.

¢ Awarded 127 ounces.

f Awarded 712 ounces.

¢ Awarded 352 ounces.

¢ Maltbie Chemical Company brand.

¢ R. D. Co. brand.

¢ Awarded one-half of total quantity.

¢ No. 100 Lakanuka.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
Instruments—Continued.				
250 pieces.....	Binder's boards— 24 by 12 inches.....	286	\$8.00	Omaha.
260 pieces.....	4 by 17 inches.....	286	.015	Do.
227.....	Bougies, flexible, hard, assorted sizes.....	25	(c)	Chicago, New York, or St. Louis.
242.....	Breast pumps.....	176	.15	St. Louis.
36.....	Carrier, for gambo, in packing uterus.....	25	.30	Chicago, New York or St. Louis.
7.....	Cases— Field, operating.....	113	34.00	Chicago, New York, Omaha, St. Louis, or San Francisco.
8.....	Operating (minor).....	113	14.25	Do.
17.....	Pocket.....	113	3.95	Do.
643.....	Catheters— Flexible, assorted sizes (hard and soft as required.).....	25	(b)	Chicago, New York, or St. Louis.
125.....	Irrigating, urethral and bladder, male—female.....	215	.26	New York (preferred), Omaha, or St. Louis.
645.....	Cups, douche, for eye, glass.....	176	.024	St. Louis.
22.....	Cupping glasses, with bulb, assorted sizes.....	280	.21	Chicago or New York.
7 sets.....	Curettes, uterine, irrigating, in sets of six (Thomas or equal)— Sharp.....	215	3.95	New York (preferred), Omaha, or St. Louis.
10 sets.....	Dull.....	215	3.90	Do.
8.....	Ferradic battery.....	177	3.50	St. Louis.
30 square yds.....	Felt, for splints.....	236	45.20	Chicago, New York, or St. Louis.
24.....	Forceps, vulsellum, uterine.....	215	.73	New York (preferred), Omaha, or St. Louis.
1,780.....	Glasses, colored, riding bow, for the eyes, assorted colors.....	180	.075	Chicago.
17.....	Inhalers— Chloroform, Esmarch's, complete with bottle.....	113	.30	Chicago, New York, Omaha, St. Louis, or San Francisco.
12.....	Ether, Allis aseptic, metal cover.....	113	2.00	Do.
25.....	Mirrors— Head, 4-inch.....	215	1.45	New York (preferred), Omaha, or St. Louis.
27 sets.....	Laryngeal, in sets of three.....	113	1.95	Chicago, New York, Omaha, St. Louis, or San Francisco.
473.....	Needles— Extra, for hypodermic syringes, male thread and female thread.....	215	.0075	New York (preferred), Omaha, or St. Louis.
75 dozen.....	Surgical, assorted.....	11	.40	New York.
5.....	Obstetrical forceps.....	113	2.35	Chicago, New York, Omaha, St. Louis, or San Francisco.
70.....	Powder blower, for larynx.....	280	.30	Chicago or New York.
17.....	Speculum for the— Ear.....	25	.50	Chicago, New York, or St. Louis.
8.....	Rectum.....	25	.65	Do.
11.....	Vagina, bivalve.....	113	.00	Chicago, New York, Omaha, St. Louis, or San Francisco.
27 dozen.....	Splints, assorted sizes.....	113	.40	Do.
21.....	Sponge holders for throat.....	215	.18	New York (preferred), Omaha, or St. Louis.
31.....	Sterilizer, Lee's, for instruments, dressings, etc., 5 x 8 x 16 inches, including an alcohol vapor lamp, or Bunsen burner, with portable case.....	215	8.73	Do.
58.....	Stethoscopes, Bowles's, for bell attachment.....	215	3.95	Do.
29.....	Stomach, tube and bulb, in substantial case.....	176	1.30	St. Louis.
142.....	Syringes— Davidson's, self-injector.....	176	1.025	Do.
33.....	Dental, good quality, for local anesthesia, complete.....	25	.90	Chicago, New York, or St. Louis.

a \$0.17; \$0.17; \$0.15.
 b \$0.17; \$0.21; \$0.21; \$0.12.
 c Domestic.

d No. 13.
 e Bottlable.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Instruments—Continued.			
	Syringes—Continued.			
146 dozen	Rar, glass	177	\$0.25	St. Louis.
73	Hard-rubber, 2-oz.	176	.46	Do.
24	Hard rubber, 8-oz.	176	1.18	Do.
81	Hypodermic	113	.35	Chicago, New York, Omaha, St. Louis, or San Francisco.
1,120	Penis, glass, in cases	147	.02	Chicago or St. Louis.
328	Fountain, 2-qt., complete, in wooden box	177	1.25	St. Louis.
200	Rectal, soft-rubber bulb, for infants	176	.108	Do.
15	Tenaculum, uterine	25	.20	Chicago, New York, or St. Louis.
	Tongue depressors—			
17	Metal	215	.16	New York (preferred), Omaha, or St. Louis.
308 dozen	Wood	25	.02	Chicago, New York, or St. Louis.
19 sets	Tooth-extracting sets, in substantial case	215	6.75	New York (preferred), Omaha, or St. Louis.
61	Tube, rectal, of soft rubber, for high enema, of good quality.	176	.34	St. Louis.
26	Urinometers	25	.33	Chicago, New York, or St. Louis.
	Uterine—			
12	Dressing forceps, Emmet's	25	.87	Do.
11	Sound, Sim's	113	.20	Chicago, New York, Omaha, St. Louis, or San Francisco.
180 bundles	Wire, for cleaning hypodermic needles	176	.006	St. Louis.
	Surgical dressings, etc.:			
	Bags—			
510	Rubber, 2-quart, for hot water	290	.77	Chicago or New York.
208	Ice, screw-capped, cloth-covered, 9-in	177	.30	St. Louis.
	Bandages—			
	Gauze—			
756 dozen	2 inches wide	22	.36	Chicago.
722 dozen	3 inches wide	22	.48	Do.
275 boxes	Bandages, roller, unbleached and unsized, assorted.	236	2.40	Chicago, New York, or St. Louis.
	Plaster of paris—			
29 dozen	1½ ins. by 5 yds.	22	.80	Chicago.
60 dozen	2 ins. by 5 yds.	22	.96	Do.
60 dozen	2½ ins. by 5 yds.	22	1.10	Do.
78 dozen	3 ins. by 5 yds.	22	1.20	Do.
23 dozen	3½ ins. by 5 yds.	22	1.30	Do.
28 dozen	4 ins. by 5 yds.	22	1.40	Do.
	Elastic, stretched—			
44	2 ins. by 3 yds.	22	.18	Do.
34	2½ ins. by 3 yds.	22	.20	Do.
81	3 ins. by 3 yds.	22	.25	Do.
44	2 ins. by 5 yds.	22	.27	Do.
38	2½ ins. by 5 yds.	22	.29	Do.
51	3 ins. by 5 yds.	22	.33	Do.
415	Suspensory	22	.08	Do.
	Cotton—			
	Absorbent—			
830 pounds	½ lb.	22	.29	Do.
1,870 pounds	1 lb.	22	1.20	Do.
306 pounds	Surgeon's nonabsorbent, ½-lb. packages.	11	.2675	New York
764 sheets	Wadding	11	4.05	Do.
	Gauze—			
	Borated, in glass—			
1,350 yards	In 1-yd. lengths	236	.10	Chicago, New York, or St. Louis.
2,410 yards	In 5-yd. lengths	236	.07	Do.
	Antiseptic (blechloride), in glass—			
1,120 yards	In 1-yd. lengths	236	.10	Do.
1,945 yards	In 5-yd. lengths	236	.07	Do.
	Iodoform—			
720 yards	In 1-yd. glass containers	236	.12	Do.
630 yards	In 5-yd. glass containers	236	.10	Do.
8,830 yards	Sterilized, plain, in packages of 25 yards	22	.03	Chicago.

• No. 512.

• No. 322-9.

• B. & B.

• Sheet 36/29.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Surgical dressings, etc.—Continued.			
	Ligature—			
177 bottles...	Catgut, carbolized, three sizes, 1 yd. each, in bottles.	236	\$0.32	Chicago, New York, or St. Louis.
182 cases.....	Silkworm gut, two sizes, fine and medium, in slides of 25 in case.	215	.14	New York (pref.), Omaha, or St. Louis.
13 ounces.....	Silver wire.....	215	1.05	Do.
284 pounds.....	Lint, patent.....	22	.39	Chicago.
	Oiled silk, opaque, 30 in. wide—			
161 yards.....	In 1-yd. rolls.....	11	.585	New York.
128 yards.....	In 5-yd. rolls.....	11	.53	Do.
80.....	Pads, Kelly's, obstetrical.....	176	4.20	St. Louis.
330 dozen.....	Pencils, hair (assorted sizes), in vials.....	177	(a)	Do.
	Plaster—			
	Adhesive, surgeon's, on spools—			
364 spools.....	1 in. wide, 10 yds. long.....	22	.24	Chicago.
376 spools.....	2 in. wide, 10 yds. long.....	22	.40	Do.
324 spools.....	3 in. wide, 10 yds. long.....	22	.52	Do.
	Plaster—			
453 yards.....	Belladonna, 1 yd. in a tin.....	22	.33	Do.
84 yards.....	Cantharidis, 1 yd. in a tin.....	22	.33	Do.
156 yards.....	Icinglass, silk, 1 yd. in a tin.....	22	.21	Do.
728 yards.....	Mustard, 4 yds. in a tin.....	22	.10	Do.
836 dozen.....	Porous.....	22	.38	Do.
213 yards.....	Rubber (Mead's), adhesive, 7 in. wide, in 1-yd. rolls.	22	.17	Do.
	Rubber sheeting, maroon, double-coated—			
46 yards.....	1 yd. wide.....	177	.70	St. Louis.
13 yards.....	1½ yds. wide.....	177	.90	Do.
89 yards.....	1½ yds. wide.....	177	1.10	Do.
	Rubber sheeting, white, double-coated—			
83 yards.....	1 yd. wide.....	290	.86	Chicago or New York.
40 yards.....	1½ yds. wide.....	177	.90	St. Louis.
156 yards.....	1½ yds. wide.....	177	1.10	Do.
145 yards.....	Tubes, rubber, drainage, Nos. 1, 2, and 3 (special length of tube and strength of walls).	215	b. 65	New York (pref.), Omaha, or St. Louis.
	Tubing, rubber—			
198 yards.....	1-in.....	177	.04	St. Louis.
292 yards.....	2-in.....	177	.09	Do.
	Disinfectants:			
1,990 bottles.....	Acid, carbolic, 95 per cent, for disinfection, in 1-pint bottles.	177	c. 1225	Do.
1,020 pounds.....	Iron, sulphate of, commercial, in 10-lb. wooden boxes.	177	.0158	Do.
7,555 pounds.....	Lime, chloride, in 5 and 10 lb. impervious boxes.	176	.0375	Do.
	Solution, formaldehyde, 40 per cent solution—			
1,540 bottles.....	In 1-quart bottles.....	286	.275	Omaha.
89 kegs.....	In 5-gall. kegs.....	177	5.20	St. Louis.
2,220 pounds.....	Sulphur, in rolls (large pieces, not crushed).....	176	.0224	Do.
	Hospital stores:			
70 pounds.....	Capsicum, powd., in 1-lb. bottles.....	177	.22	Do.
425 pounds.....	Cornstarch, in 1-lb. packages.....	177	.05	Do.
150 pounds.....	Flaxseed, whole, in tin cans.....	177	.06	Do.
1,150 pounds.....	Flaxseed meal, in tins (crushed seed, not cakes).....	286	.075	Omaha.
89 pounds.....	Gelatin.....	286	.25	Do.
75 pounds.....	Ginger, powd., in 1-lb. bottles.....	286	.22	Do.
2,100 pounds.....	Soap, for medicinal use.....	176	.105	St. Louis.
2,065 pounds.....	Soap, castile, white.....	176	.11	Do.
572 pounds.....	Soap, green, in 1-lb. jars.....	177	.14	Do.
	Miscellaneous:			
34.....	Basins, pus, enameled ware.....	158	.82	Chicago.
610 tins.....	Bedbug destroyer, in 1-pint tins.....	286	.065	Omaha.
	Boxes—			
2,730 dozen.....	Ointment, impervious.....	177	4.17	St. Louis.
1,935 dozen.....	Powder.....	177	f. 04½	Do.
425.....	Brushes, nail or hand, for surgical use.....	177	f. 03	Do.
8.....	Cases, medicine, buggy.....	177	4.75	Do.

a No. 3, \$0.07; No. 4, \$0.08; No. 5, \$0.11; No. 6, \$0.12; No. 7, \$0.14; No. 8, \$0.18.
 b 1 yd. each for 3 yds. in tin box.

c Crude.

d Quaker.

e 1 and 1 ounce Rand & Yale, Mount Washington.

f 126 to 128.

g No. 8750.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

MEDICAL SUPPLIES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
1,170 boxes...	Miscellaneous—Continued.			
	Capsules, gelatin, assorted, Nos. 0 to 4.....	109	\$0.05	Chicago, New York, or St. Louis.
8.....	Chairs, operating.....	10	\$30.00	St. Louis.
10.....	Cork pressers.....	176	.14	Do.
1 074 gross.....	Corks, velvet, best, sizes Nos. 1 to 10.....	177	(8)	Do.
216 hundred.....	Cups, sputum, paper.....	172	1.41	New York.
6.....	Dispensatory of U. S., edition of 1906.....	177	5.50	St. Louis.
10 720.....	Droppers, medicine.....	176	.01½	Do.
780 hundred.....	Envelopes, drug, medium size, by the 100.....	177	.0425	Do.
20.....	Formulary, National (latest edition).....	176	1.34	Do.
43.....	Funnels, glass, 8-oz.....	286	.07	Omaha.
15.....	Hones.....	158	.30	Chicago.
	Labels, blank, prescription, gummed—			
442 hundred.....	1 by 2 inches.....	286	.025	Omaha.
550 hundred.....	2 by 3 inches.....	286	.0375	Do.
232 hundred.....	3 by 4 inches.....	286	.05	Do.
	Measures, graduated, glass—			
40.....	8-oz.....	176	.18	St. Louis.
48.....	4-oz.....	176	.12	Do.
50.....	Measures, graduated, glass, minim.....	290	.22	Chicago or New York.
106 dozen.....	Medicine glasses, ½-oz., graduated.....	177	¢.15	St. Louis.
	Mortars and pestles—			
	Wedgwood—			
5.....	3-in.....	177	.20	Do.
5.....	4-in.....	177	.25	Do.
5.....	5-in.....	177	.35	Do.
5.....	6-in.....	177	.43	Do.
9.....	8-in.....	177	.75	Do.
15.....	Glass, 4-in.....	177	.15	Do.
1 730.....	Nipples, for nursing bottles, to fit over neck of bottle.....	177	.0175	Do.
130 hundred.....	Papers, blue and white, 4½ in. by 6 in., for Selditz powder.....	177	¢.02	Do.
	Paper—			
29 packs.....	Filtering, round, gray, 10-in.....	286	.20	Omaha.
84 boxes.....	Litmus, blue and red, in boxes of 1 dozen books.....	177	.20	St. Louis.
570 hundred.....	Papers, powder, 2½ by 3½ in.....	177	.01	Do.
934 quires.....	Paper, wrapping.....	177	¢.08	Do.
7.....	Percolators, glass, ½-gallon.....	177	.23	Do.
2 645 dozen.....	Pill boxes, paper.....	176	.045	Do.
8.....	Pill tiles, 8-inch, graduated.....	176	.48	Do.
6.....	Saddlebags, medical, convertible.....	215	7.95	New York (pref.), Omaha, or St. Louis.
19.....	Scales and weights, prescription.....	176	1.78	St. Louis.
	Spatulas—			
28.....	3-in.....	158	.11	Chicago.
26.....	6-in.....	158	.165	Do.
23.....	Spirit lamps.....	286	.12	Omaha.
5.....	Tables, operating.....	10	60.00	St. Louis.
43.....	Test tubes, 5-in.....	147	.08	Chicago or St. Louis.
925.....	Thermometers, clinical, with certificate.....	232	.29	Chicago, New York, Rochester, or St. Louis.
12.....	Tubes, drinking, glass, assorted sizes.....	176	.64	St. Louis.
776.....	Twine, wrapping, cotton.....	158	.0175	Chicago.
	Vials—			
894 dozen.....	½-oz.....	176	.095	St. Louis.
1 280 dozen.....	1-oz.....	176	.10	Do.
2 560 dozen.....	2-oz.....	176	.115	Do.
2 720 dozen.....	4-oz.....	176	.165	Do.
1 300 dozen.....	6-oz.....	176	.195	Do.
231 ounces.....	Wax, white, in paper.....	177	f. 03	Do.

* Complete with both upright and heel stirrups, and with complete irrigator.

† Size 1, \$0.15; 2, \$0.15; 3, \$0.18; 4, \$0.21; 5, \$0.25; 6, \$0.28; 7, \$0.35; 8, \$0.44; 9, \$0.51; 10, \$0.66.

‡ No. 1.

§ 72 blue, 72 white.

¶ No. 1 manila, 24 x 36.

‡ U. S. P.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
2.....	Adzes, c. s., house carpenter's, $4\frac{1}{2}$ -inch cut, square head.	158	\$0.70	Chicago.
	Anvil, wrought-iron, steel face:			
1.....	100-pound..... per pound..	160	.0897	St. Louis.
6.....	140-pound..... per pound..	160	.0897	Do.
1.....	200-pound..... per pound..	214	.09	Do.
	Augers, nut, with extension lip:			
4.....	1-inch.....	214	.20	Do.
6.....	1 $\frac{1}{2}$ -inch.....	214	.255	Do.
7.....	1 $\frac{1}{2}$ -inch.....	214	.32	Do.
6.....	2-inch.....	214	.444	Do.
9.....	Augers, c. s., hollow, adjustable, to cut $\frac{1}{2}$ to 1 inch.	158	.36	Chicago.
94 dozen	Axes, assorted, $3\frac{1}{2}$ to $4\frac{1}{2}$ pounds, Yankee pattern, inserted or overlaid steel.	158	4.60	Do.
1.....	Ax, c. s., broad, 12-inch cut, single bevel, steel head.	214	1.25	St. Louis.
35.....	Axes, c. s., hunter's, inserted or overlaid steel, handled, No. 2.	214	.275	Do.
780 pounds	Babbitt metal, medium quality.....	158	.065	Chicago.
3.....	Bellows, blacksmith's, 38-inch, standard.	160	5.89	St. Louis.
	Bells:			
5.....	Cow, No. 2 wrought.....	214	.16	Do.
30.....	Hand, No. 8, polished, extra heavy.....	214	.46	Do.
	Bells, school, with fixtures for hanging:			
2.....	To weigh 240 to 260 pounds.....	194	10.20	Do.
2.....	To weigh 300 to 350 pounds.....	194	19.00	Do.
	Belting, leather, single:			
180 feet.....	1-inch.....	109	.0487	Do.
280 feet.....	1 $\frac{1}{2}$ -inch.....	109	.0735	Do.
320 feet.....	1 $\frac{1}{2}$ -inch.....	109	.0865	Do.
830 feet.....	2-inch.....	109	.0975	Do.
75 feet.....	2 $\frac{1}{2}$ -inch.....	109	.1315	Do.
406 feet.....	3-inch.....	109	.1575	Do.
190 feet.....	3 $\frac{1}{2}$ -inch.....	109	.185	Do.
880 feet.....	4-inch.....	109	.21	Do.
150 feet.....	5-inch.....	109	.236	Do.
420 feet.....	6-inch.....	109	.36	Do.
75 feet.....	12-inch.....	109	.74	Do.
	Belting, rubber, 3-ply:			
220 feet.....	3-inch.....	166	.094	Do.
135 feet.....	4-inch.....	160	.1102	Do.
845 feet.....	6-inch.....	158	.16	Chicago.
415 feet.....	8-inch.....	160	.2722	St. Louis.
175 feet.....	12-inch.....	160	.4212	Do.
26.....	Bevels, sliding T, 10-inch, metal handle.....	214	.385	Do.
	Bits, auger, c. s., Jennings, Irwin, or Ford pattern, extension lip:			
12 dozen.....	1-inch.....	158	1.46	Chicago.
10 dozen.....	1 $\frac{1}{2}$ -inch.....	158	1.46	Do.
11 dozen.....	1 $\frac{1}{2}$ -inch.....	158	1.46	Do.
8 dozen.....	1 $\frac{1}{2}$ -inch.....	158	1.65	Do.
11 dozen.....	1 $\frac{1}{2}$ -inch.....	158	1.82	Do.
3 $\frac{1}{2}$ dozen.....	1 $\frac{1}{2}$ -inch.....	158	2.01	Do.
4 dozen.....	1 $\frac{1}{2}$ -inch.....	158	2.19	Do.
3 $\frac{1}{2}$ dozen.....	1 $\frac{1}{2}$ -inch.....	158	2.55	Do.
5 $\frac{1}{2}$ dozen.....	1 $\frac{1}{2}$ -inch.....	158	2.55	Do.
2 $\frac{1}{2}$ dozen.....	1 $\frac{1}{2}$ -inch.....	158	2.92	Do.
4 $\frac{1}{2}$ dozen.....	1 $\frac{1}{2}$ -inch.....	158	2.92	Do.
4 $\frac{1}{2}$ dozen.....	1 $\frac{1}{2}$ -inch.....	158	3.28	Do.
	Bolts, carriage, "Philadelphia," turned heads, per 100:			
3,350.....	x 1.....	158	.48	Do.
4,150.....	x $1\frac{1}{2}$	158	.52	Do.
4,850.....	x 2.....	158	.56	Do.
3,900.....	x 2 $\frac{1}{2}$	158	.68	Do.
3,350.....	x 3.....	158	.61	Do.
2,400.....	x 3 $\frac{1}{2}$	158	.65	Do.
2,450.....	x 1 $\frac{1}{2}$	158	.68	Do.
3,200.....	x 2.....	158	.87	Do.
2,700.....	x 2 $\frac{1}{2}$	158	.87	Do.
3,960.....	x 2 $\frac{1}{2}$	158	.94	Do.
4,150.....	x 3.....	158	1.00	Do.
3,460.....	x 4.....	158	1.15	Do.
2,300.....	x 5.....	158	1.28	Do.
2,660.....	x 6.....	158	1.43	Do.
1,960.....	x 4.....	158	1.98	Do.
1,000.....	x 5.....	158	2.17	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Bolts, carriage, "Philadelphia," turned heads, per 100—Continued.			
1,550.....	x 6.....	158	\$2.36	Chicago.
700.....	x 7.....	158	2.54	Do.
1,250.....	x 8.....	158	2.72	Do.
850.....	x 9.....	158	2.90	Do.
1,450.....	x 10.....	158	3.07	Do.
1,150.....	x 11.....	158	3.26	Do.
1,600.....	x 12.....	158	3.44	Do.
21 dozen.....	Bolts, door, wrought-iron barrel: 5-inch.....	214	.35	St. Louis.
10 dozen.....	8-inch.....	214	.84	Do.
	Bolts, machine, per 100:			
2,260.....	x 1.....	158	.33	Chicago.
1,500.....	x 1½.....	158	.33	Do.
2,880.....	x 2.....	158	.35	Do.
2,350.....	x 2½.....	158	.36	Do.
2,200.....	x 3.....	158	.37	Do.
1,900.....	x 3½.....	158	.39	Do.
2,250.....	x 4.....	158	.39	Do.
1,950.....	x 4½.....	158	.39	Do.
2,600.....	x 5.....	158	.41	Do.
2,200.....	x 5½.....	158	.43	Do.
2,800.....	x 6.....	158	.46	Do.
2,600.....	x 6½.....	158	.48	Do.
2,100.....	x 7.....	158	.51	Do.
1,800.....	x 7½.....	214	.54	St. Louis.
2,100.....	x 8.....	214	.56	Do.
2,725.....	x 9.....	158	.50	Chicago.
1,675.....	x 9½.....	158	.53	Do.
2,750.....	x 10.....	158	.56	Do.
1,400.....	x 10½.....	158	.59	Do.
2,625.....	x 11.....	158	.62	Do.
1,600.....	x 11½.....	158	.65	Do.
1,900.....	x 12.....	158	.90	Do.
1,350.....	x 12½.....	158	.94	Do.
2,025.....	x 13.....	158	.98	Do.
700.....	x 13½.....	158	1.02	Do.
1,025.....	x 14.....	158	1.06	Do.
650.....	x 14½.....	158	1.10	Do.
725.....	x 15.....	158	1.14	Do.
1,450.....	x 15½.....	158	.87	Do.
1,150.....	x 16.....	158	.92	Do.
1,850.....	x 16½.....	158	.97	Do.
450.....	x 17.....	158	1.02	Do.
625.....	x 17½.....	158	1.06	Do.
675.....	x 18.....	158	1.18	Do.
450.....	x 18½.....	158	1.28	Do.
1,625.....	x 19.....	158	1.18	Do.
1,400.....	x 19½.....	158	1.26	Do.
1,025.....	x 20.....	158	1.32	Do.
1,175.....	x 20½.....	158	1.39	Do.
475.....	x 21.....	158	1.46	Do.
875.....	x 21½.....	158	1.52	Do.
300.....	x 22.....	158	1.65	Do.
525.....	x 22½.....	158	1.79	Do.
225.....	x 23.....	158	1.92	Do.
645.....	x 23½.....	158	2.06	Do.
	Bolts, "Philadelphia," tire, per 100:			
2,400.....	x 1½.....	158	.19	Do.
4,000.....	x 1¾.....	158	.19	Do.
4,400.....	x 2.....	158	.20	Do.
1,200.....	x 2½.....	158	.25	Do.
2,700.....	x 3.....	158	.28	Do.
2,700.....	x 3½.....	158	.31	Do.
1,100.....	x 4.....	158	.34	Do.
780.....	x 4½.....	158	.38	Do.
700.....	x 5.....	158	.42	Do.
1,300.....	x 5½.....	158	.45	Do.
800.....	x 6.....	158	.49	Do.
30 dozen.....	Bolts, window, spring, cast-brass bolt, screw socket.....	194	.20	St. Louis.
48.....	Braces, ratchet, B. B. 10-inch sweep, nickel or rustless finish.....	214	1.08	Do.
	Brads, steel, wire, in 1-pound packages:			
58 pounds.....	1-inch, No. 20 gauge.....	214	.0825	Do.
110 pounds.....	1-inch, No. 18 gauge.....	214	.05	Do.
142 pounds.....	1-inch, No. 17 gauge.....	214	.038	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
111 pounds...	Brads, steel, wire, in 1-pound packages—Cont'd.			
110 pounds...	11-inch, No. 16 gauge.....	214	\$0.0825	St. Louis.
	11-inch, No. 15 gauge.....	214	.08	Do.
29 dozen pairs	Butts, brass, middle:			
29 dozen pairs	11-inch.....	214	.178	Do.
29 dozen pairs	2-inch.....	20	.277	Chicago.
	21-inch.....	20	.512	Do.
65 dozen pairs	Butts, loose pin, steel:			
34 dozen pairs	2½ x 2½ inches.....	194	.29	St. Louis.
31 dozen pairs	3 x 2½ inches.....	194	.39	Do.
64 dozen pairs	3 x 3 inches.....	194	.42	Do.
22 dozen pairs	3½ x 3½ inches.....	194	.61	Do.
9 dozen pairs	4 x 4 inches.....	194	.75	Do.
	4½ x 4½ inches.....	194	.94	Do.
5.....	Calipers, spring, 6-inch, Yankee pattern:			
4.....	Outside.....	194	.45	Do.
	Inside.....	194	.45	Do.
265 pounds.	Calks, toe, steel:			
665 pounds.	No. 1.....	8	.0365	Chicago.
745 pounds.	No. 2.....	8	.0365	Do.
	No. 3.....	8	.0365	Do.
32.....	Cards, cattle, leather back, bound edge.....	214	.06	St. Louis.
416.....	Catches, or turns, iron cupboard, bronzed, metal knob, good quality, and heavy.....	158	.04	Chicago.
	Chains, log, short links, with swivel, ordinary hook and grab hook; 10, 12, 14, and 16 feet, as required, per pound:			
24.....	1-inch.....	158	.0425	Do.
34.....	1-inch.....	158	.0375	Do.
7½ gross	Chalk, carpenter's, assorted colors.....	158	.50	Do.
58 dozen	Chalk lines, braided, medium size.....	158	.17	Do.
21.....	Chisels, c. s., cold, octagon, ¾ x 7 inches.....	158	.065	Do.
3.....	Chisels, c. s., socket, corner, 1-inch, handled.....	214	.33	St. Louis.
21.....	Chisels, c. s., socket, firmer, sharpened, leather-top handles:			
	1-inch.....	214	.14	Do.
23.....	1-inch.....	214	.14	Do.
47.....	1-inch.....	214	.146	Do.
36.....	1-inch.....	214	.156	Do.
44.....	1-inch.....	214	.175	Do.
15.....	1½-inch.....	214	.19	Do.
29.....	1½-inch.....	214	.206	Do.
23.....	2-inch.....	214	.225	Do.
	Chisels, c. s., socket, oval back, framing, sharpened and handled:			
3.....	1-inch.....	158	.17½	Chicago.
3.....	1-inch.....	158	.17½	Do.
4.....	1-inch.....	158	.185	Do.
2.....	1-inch.....	158	.19½	Do.
4.....	1-inch.....	158	.21	Do.
2.....	1½-inch.....	158	.23	Do.
3.....	1½-inch.....	158	.255	Do.
1.....	2-inch.....	158	.30	Do.
	Clamps:			
20.....	Malleable, carriage, 10-inch.....	214	.31	St. Louis.
6.....	Saw, swivel, 9-inch jaw.....	214	.28	Do.
16.....	Cleavers, butcher's, 10-inch.....	194	.95	Do.
197 pairs	Clippers, toilet, good quality, B. B.....	158	.60	Chicago.
31 quires	Cloth, emery, assorted, per quire.....	194	.485	St. Louis.
64,450 sq. ft.	Cloth, wire, for screens, painted black, or galvanized finish.....	214	¢1.65	Do.
12.....	Cocks, brass, racking, to screw, loose key, ½-inch.....	158	.30	Chicago.
12.....	Corkscrews, wood handle, cut worm.....	194	.06	St. Louis.
24.....	Crowbars, solid steel, wedge point, assorted sizes, per pound.....	158	.025	Chicago.
17.....	Cutters, bolt, for ½-inch.....	194	2.28	St. Louis.
	Dividers, c. s., wing:			
9.....	6-inch.....	214	.10	Do.
5.....	10-inch.....	214	.175	Do.
	Drills:			
4.....	Blacksmith's, vertical.....	160	5.40	Do.
2.....	Breast, 2 pairs of jaws, 2-speed.....	214	1.75	Do.
22 sets	Bitstock, assorted, ¼ to ¾-inch, by 32ds.....	158	.70	Chicago.
82 sets	Straight-shank, jobber's, assorted, ¼ to ¾ inch, by 32ds.....	158	1.19	Do.
26 sets	Wood-boring, brace, assorted, ¼ to ¾ inch, by 32ds.....	158	.96	Do.

• Galvanized; per 100 square feet.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
73.....	Faucets, wood, cork-lined, best, No. 6.....	214	\$0.04	St. Louis.
18 dozen.....	Files, flat, bastard:	158	1.08	Chicago.
30 dozen.....	10-inch.....	158	1.48	Do.
9 dozen.....	12-inch.....	158	2.88	Do.
9 dozen.....	Files, cabinet:	158	3.82	Do.
5½ dozen.....	12-inch.....	158	1.40	Do.
8 dozen.....	14-inch.....	158	1.82	Do.
45 dozen.....	Files, half-round, bastard:	158	.74	Do.
29 dozen.....	10-inch.....	158	.97	Do.
30 dozen.....	Files, mill, bastard, 1 round edge:	158	1.29	Do.
28 dozen.....	8-inch.....	158	1.84	Do.
5½ dozen.....	10-inch.....	158	.54	Do.
4½ dozen.....	12-inch.....	158	.66	Do.
4 dozen.....	14-inch.....	158	.86	Do.
2½ dozen.....	Files, round, bastard:	158	1.15	Do.
1½ dozen.....	6-inch.....	158	1.65	Do.
60 dozen.....	8-inch.....	158	.54	Do.
42 dozen.....	10-inch.....	158	.59	Do.
27 dozen.....	12-inch.....	158	.67	Do.
32 dozen.....	14-inch.....	158	.76	Do.
300 pairs.....	Files, double-end, taper, with handles:	214	.025	St. Louis.
188 dozen.....	7-inch.....	158	.80	Do.
60.....	8-inch.....	214	.10	Do.
10.....	Forks, table, imitation stag handle, with bolster.	214	.10	Do.
14.....	Gates, molasses, No. 2.....	214	.10	Do.
2.....	Gauges:	214	.10	Do.
3.....	Marking, brass-mounted.....	214	.337	Do.
6.....	Mortise, screw slide.....	158	.385	Chicago.
8.....	Splitting, with handle.....	158	.33	Do.
6.....	Gluepots, No. 1, porcelain or tin lined.....	214	.305	St. Louis.
8.....	Gauges, c. s., socket, firmer, sharpened, leather-top handles:	214	.33	Do.
8.....	1-inch.....	214	.34	Do.
6.....	1-inch.....	214	.36	Do.
6.....	1-inch.....	214	.38	Do.
6.....	1-inch.....	214	.40	Do.
8.....	Grindstones, unmounted, per pound:	194	.01	Do.
7.....	Weighting 50 pounds.....	214	.01	Do.
3.....	Weighting 100 pounds.....	194	.01	Do.
40.....	Weighting 150 pounds.....	214	.295	Do.
17 dozen.....	Grindstone fixtures, 17 inches, improved patent cap, extra heavy, turned rollers.	214	.45	Do.
48 dozen.....	Handles:	194	.35	Do.
16 dozen.....	Hammer, blacksmith's, 18-inch.....	158	.32	Chicago.
14 dozen.....	Hammer, claw, 13-inch.....	214	.82	St. Louis.
116.....	Hatchet, 15-inch.....	214	.33	Do.
19.....	Sledge, "extra," 36-inch.....	194	.33	Do.
3.....	A. E., solid, c. s., forged, No. 1½.....	194	.33	Do.
20.....	Hammers, farrier's:	194	.33	Do.
7.....	Shoeing, c. s.....	214	1.15	Do.
37.....	Turning, half-bright, assorted, 2 to 2½ pounds.....	109	.30	Do.
2.....	Hammers, machinist's, ball peen:	109	.35	Do.
10.....	1½-pound.....	158	.25	Chicago.
6.....	2½-pound.....	158	.27	Do.
12.....	Hammers, riveting, solid, c. s.:	158	.285	Do.
4.....	1½-pound.....	194	.40	St. Louis.
7.....	1½-pound.....	194	.47	Do.
12.....	Hammers, sledge, blacksmith's, solid, c. s., handled:	194	0.0385	Do.
4.....	2-pound.....	194	0.0385	Do.
18.....	3-pound.....	194	0.0385	Do.
4.....	6-pound.....	194	0.0385	Do.
12.....	8-pound.....	214	.348	Do.
4.....	10-pound.....	194	0.06	Do.
18.....	Hammers, mason's, solid, c. s.:	194	.15	Do.
4.....	Ax finish, 5-pound.....	194	.15	Do.
18.....	Natural finish, 8-pound.....	194	.15	Do.
18.....	Hammers, tack, upholster's pattern, steel.....	194	.15	Do.

* Per pound.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
	Hatchets, c. s.:			
23.....	Broad, 6-inch cut, steel head, single bevel, handled.....	214	\$0.525	St. Louis.
22.....	Lathing, No. 1.....	214	.24	Do.
46.....	Shingling, No. 2.....	214	.28	Do.
	Hasps, hinge:			
74 dozen.....	6-inch.....	194	.34	Do.
42 dozen.....	10-inch.....	194	.62	Do.
	Hinges, extra heavy, T:			
11 doz. prs....	8-inch.....	194	1.07	Do.
8 doz. prs....	10-inch.....	194	1.58	Do.
1 doz. pairs....	12-inch.....	158	2.28	Chicago.
	Hinges, heavy, strap:			
14 doz. pairs..	8-inch.....	194	.81	St. Louis.
9 doz. pairs..	10-inch.....	194	1.23	Do.
4 doz. pairs..	12-inch.....	194	1.88	Do.
	Hinges, light, strap:			
33 doz. pairs..	6-inch.....	214	.875	Do.
17 doz. pairs..	8-inch.....	214	.525	Do.
8 doz. pairs..	10-inch.....	214	.735	Do.
1 doz. pairs..	12-inch.....	214	1.10	Do.
16 doz. pairs..	Hinges, light, T, 6-inch.....	158	.81	Chicago.
	Hinges, heavy, T:			
7 doz. pairs..	8-inch.....	158	.41	Do.
1 doz. pairs..	10-inch.....	158	.61	Do.
300 dozen.....	Hooks, hat and coat, schoolhouse pattern, heavy, japanned.	214	.145	St. Louis.
	Iron, band, per 100 pounds:			
350 pounds....	x 1.....	160	2.45	Do.
740 pounds....	x 1.....	160	2.20	Do.
400 pounds....	x 1 1/2.....	160	2.10	Do.
875 pounds....	x 1 1/2.....	160	2.10	Do.
1 225 pounds..	x 1.....	160	2.10	Do.
1,325 pounds..	x 2.....	160	2.00	Do.
	Iron, refined, per 100 pounds:			
2,000 pounds..	x 1.....	160	2.20	Do.
2,575 pounds..	x 1.....	160	1.90	Do.
1,200 pounds..	x 1 1/2.....	160	1.90	Do.
1,350 pounds..	x 2.....	160	1.90	Do.
200 pounds....	x 2 1/2.....	160	1.90	Do.
600 pounds....	x 2 1/2.....	160	1.90	Do.
500 pounds....	x 4.....	160	1.90	Do.
1,150 pounds..	x 2.....	160	1.90	Do.
550 pounds....	x 2 1/2.....	160	1.90	Do.
400 pounds....	x 2 1/2.....	160	1.90	Do.
950 pounds....	x 1.....	160	2.10	Do.
1,350 pounds..	x 1.....	160	1.90	Do.
920 pounds....	x 1 1/2.....	160	1.80	Do.
1,500 pounds..	x 1 1/2.....	160	1.70	Do.
1,050 pounds..	x 2.....	160	1.70	Do.
400 pounds....	x 2 1/2.....	160	1.70	Do.
800 pounds....	x 3.....	160	1.70	Do.
500 pounds....	x 3 1/2.....	160	1.70	Do.
600 pounds....	x 1.....	160	2.10	Do.
550 pounds....	x 1 1/2.....	160	1.70	Do.
550 pounds....	x 1.....	160	2.10	Do.
1,150 pounds..	x 1.....	160	1.90	Do.
1,300 pounds..	x 1 1/2.....	160	1.70	Do.
1,500 pounds..	x 1 1/2.....	160	1.70	Do.
1,700 pounds..	x 2.....	160	1.70	Do.
600 pounds....	x 2 1/2.....	160	1.70	Do.
350 pounds....	x 2 1/2.....	160	1.70	Do.
900 pounds....	x 1 1/2.....	160	1.70	Do.
1,100 pounds..	x 2.....	160	1.70	Do.
300 pounds....	x 2 1/2.....	160	1.70	Do.
2,900 pounds..	Iron, Juniata, sheet, galvanized, 28-inch, No. 25, per 100 pounds.	158	3.40	Chicago.
	Iron, refined, round, per 100 pounds:			
2,750 pounds..	1-inch.....	160	2.25	St. Louis.
3,600 pounds..	1-inch.....	160	2.10	Do.
3,000 pounds..	1-inch.....	160	2.00	Do.
5,700 pounds..	1-inch.....	160	2.00	Do.
750 pounds....	1-inch.....	160	2.00	Do.
5,700 pounds..	1-inch.....	160	1.90	Do.
4,200 pounds..	1-inch.....	160	1.80	Do.
2,100 pounds..	1-inch.....	160	1.80	Do.
3,600 pounds..	1-inch.....	160	1.70	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
750 pounds...	Iron, refined, sheet, per 100 pounds:	158	\$2.55	Chicago.
400 pounds...	1 1/2-inch thick.....	158	2.65	Do.
150 pounds...	Iron, refined, square, per 100 pounds:	160	2.10	St. Louis.
600 pounds...	1-inch.....	160	2.00	Do.
975 pounds...	1-inch.....	160	1.90	Do.
650 pounds...	1-inch.....	160	1.80	Do.
450 pounds...	1-inch.....	160	1.70	Do.
368 dozen.....	Knives:			
278.....	Table, imitation stag handle, with bolster.....	214	.825	Do.
36 dozen.....	Bread, thin blade.....	158	.12	Chicago.
	Butcher, 8-inch, beech handle, without bolster, Wilson pattern or equal.....	158	1.76	Do.
130 pairs.....	Carving, and forks, forged, with bolster and guard, genuine stag handles, per pair.....	194	.86	St. Louis.
57.....	Chopping, hollow iron handle, forged blade.....	158	.0525	Chicago.
	Knives, drawing, c. s., carpenter's, hollow-ground:			
17.....	10-inch.....	158	.29	Do.
7.....	12-inch.....	158	.31	Do.
33.....	Knives:			
144.....	Horsehoeing, assorted widths, stag handle.....	158	.225	Do.
124.....	Puity, with bolster.....	158	.0925	Do.
	Skinning, 6-inch, beech handle, without bolster.....	214	.13	St. Louis.
8 1/2 dozen.....	Latches, thumb, heavy, all wrought.....	158	.85	Chicago.
29.....	Levels, spirit, with plumb, 24 to 30 inch, adjustable.....	158	.56	Do.
7 dozen.....	Locks:			
	Closet, rim, dead, 2-tumbler, 3 1/2-inch, brass bolt, 2 steel keys.....	194	2.35	St. Louis.
21 dozen.....	Drawer, 2-tumbler, 2 1/2 x 2 inches, iron, 2 keys.....	194	2.40	Do.
24 dozen.....	Locks, upright rim, mineral knob, brass bolt, 2 steel keys:			
24 dozen.....	4-inch.....	194	2.75	Do.
7 1/2 dozen.....	4 1/2-inch.....	194	3.55	Do.
2 1/2 dozen.....	5-inch.....	194	4.50	Do.
54 dozen.....	6-inch.....	194	6.60	Do.
	Lock sets, 3 1/2-inch, mortise, jet knobs, bronzed-steel combined rose and escutcheon, brass bolts and face, 2 steel keys.....	194	4.10	Do.
	Locks, spring, pad, iron or brass, 3-tumbler, 2 keys each, assorted combinations on each shipping order:			
76 dozen.....	Suitable for outside use.....	214	3.15	Do.
26 dozen.....	Suitable for inside use.....	194	1.25	Do.
30 dozen.....	Locks, Fitch pattern, sash, heavy, bronzed.....	158	.30	Chicago.
43.....	Mallets, carpenter's, hickory, round, 6 x 4 inches.....	214	.12	St. Louis.
38.....	Measures, tape, 75-foot, bent leather case.....	214	.79	Do.
55 M.....	Nails, gilt, upholsterer's, size 43, per M.....	20	.27	Chicago.
2,300 pounds.....	Nails, wire, 3d., lath, per 100 pounds.....	158	2.475	Do.
3,300 pounds.....	Nails, wire, steel, per 100 pounds:			
2,500 pounds.....	3d.....	158	2.425	Do.
7,200 pounds.....	4d.....	158	2.375	Do.
22,000 pounds.....	6d.....	158	2.175	Do.
14,800 pounds.....	8d.....	158	2.075	Do.
3,100 pounds.....	10d.....	158	2.025	Do.
16,500 pounds.....	12d.....	158	2.025	Do.
4,700 pounds.....	20d.....	158	1.975	Do.
6,600 pounds.....	30d.....	158	1.975	Do.
6,500 pounds.....	40d.....	158	1.975	Do.
	60d.....	158	1.975	Do.
900 pounds.....	Nails, wire, fence, steel, per 100 pounds:			
700 pounds.....	8d.....	158	2.075	Do.
800 pounds.....	10d.....	158	2.025	Do.
	12d.....	158	2.025	Do.
3,200 pounds.....	Nails, wire, finishing, steel, per 100 pounds:			
4,200 pounds.....	6d.....	158	2.425	Do.
3,700 pounds.....	8d.....	158	2.325	Do.
	10d.....	158	2.225	Do.
1,450 pounds.....	Nails, horseshoe, per 100 pounds:			
800 pounds.....	No. 6.....	160	.074	St. Louis.
420 pounds.....	No. 7.....	160	.074	Do.
	No. 8.....	160	.074	Do.

* American Steel and Wire Company brand.

† Per pound.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
275 pounds...	Nails, oxhoe, No. 5, per 100 pounds.....	160	¢\$0.074	St. Louis.
13.....	Nippers, shoeing, Hallar's or equal.....	160	.90	Do.
	Nuts, iron, square, blank, hot-punched, for—			
20 pounds...	1/2-inch bolt.....	160	.078	Do.
160 pounds...	1/2-inch bolt.....	160	.063	Do.
440 pounds...	1/2-inch bolt.....	160	.048	Do.
310 pounds...	1/2-inch bolt.....	160	.035	Do.
400 pounds...	1/2-inch bolt.....	160	.033	Do.
390 pounds...	1/2-inch bolt.....	160	.032	Do.
212.....	Oilers, bronzed steel, No. 14, 5-inch spout.....	109	.11	Do.
42.....	Oilstones, Washita, composition, or carborundum.	158	.18	Chicago.
210 pounds...	Packing, hemp, 1/2-inch, square.....	109	.135	St. Louis.
165 pounds...	Packing, C. I. rubber:			
	1/2-inch.....	166	.135	Do.
160 pounds...	1/2-inch.....	166	.135	Do.
100 pounds...	1/2-inch.....	166	.135	Do.
130 pounds...	1/2-inch.....	166	.135	Do.
	Packing, Rainbow style:			
470 pounds...	1/2-inch.....	194	.33	Do.
425 pounds...	1/2-inch.....	194	.33	Do.
375 quires...	Paper, sand (assorted), per quire.....	194	.10	Do.
110 dozen...	Pencils, carpenter's, 7-inch.....	194	.14	Do.
6.....	Pinchers, blacksmith's, shoeing.....	194	.33	Do.
	Planes:			
26.....	Block, 6-inch, knuckle joint, No. 18.....	158	.62	Chicago.
3.....	Fore, adjustable, wood bottom, No. 20.....	158	.94	Do.
	Planes, wood, hollow and round:			
2 pairs.....	1-inch, c. s.....	158	.74	Do.
2 pairs.....	1 1/2-inch.....	158	.74	Do.
2 pairs.....	1 1/2-inch.....	158	.87	Do.
	Planes, adjustable, wood bottoms:			
11.....	Jack, No. 27.....	214	.82	St. Louis.
9.....	Jointer's, No. 33.....	214	1.05	Do.
	Planes, match, iron, Stanley pattern:			
3 pairs.....	1/2-inch, No. 49.....	158	1.44	Chicago.
4 pairs.....	1/2-inch, No. 48.....	158	1.44	Do.
3.....	Planes, plow, embracing beading and center-beading plane, rabbet and fillister, dado, plow, matching and slitting plane, No. 45.....	214	4.70	St. Louis.
1.....	Plane, dado, iron, Stanley pattern, 1/2-inch, No. 39.....	158	.88	Chicago.
	Planes, rabbet, iron, Stanley pattern:			
2.....	1-inch, No. 192.....	214	.685	St. Louis.
2.....	1 1/2-inch, No. 190.....	214	.685	Do.
8.....	Planes, smooth, adjustable, wood bottoms, No. 35, Stanley pattern.....	158	.93	Chicago.
	Pliers, 7-inch, c. s., heavy:			
30.....	Side-cutting.....	158	.35	Do.
10.....	Round nose.....	194	.23	St. Louis.
11.....	Pliers, end-cutting, nippers, reversible blade, 10-inch, c. s., heavy.....	194	.75	Do.
	Punches:			
1 dozen.....	Saddler's, c. s., round, to drive, assorted, Nos. 2, 3, 4, 5, and 6.....	158	.40	Chicago.
1 1/4 dozen.....	Conductor's, heavy, assorted shapes of holes.....	214	2.20	St. Louis.
	Rasps, horse, floor:			
28.....	12-inch.....	158	.18	Chicago.
85.....	14-inch.....	160	.22	St. Louis.
230.....	16-inch.....	160	.30	Do.
	Rasps, wood, flat:			
48.....	12-inch.....	158	.25	Chicago.
24.....	14-inch.....	158	.33	Do.
	Rasps, wood, half round:			
46.....	12-inch.....	158	.26 1/2	Do.
19.....	14-inch.....	158	.35 1/2	Do.
	Rivet sets, polished and blued:			
12.....	No. 2.....	194	.26	St. Louis.
9.....	No. 3.....	194	.21	Do.
9.....	No. 7.....	158	.13	Chicago.
	Rivets and burrs, copper, in 1-lb. boxes:			
20 pounds...	1/2-inch, No. 8.....	194	.22	St. Louis.
20 pounds...	1/2-inch, No. 12.....	214	.242	Do.
44 pounds...	1/2-inch, No. 8.....	194	.22	Do.
82 pounds...	1/2-inch, No. 12.....	214	.242	Do.
81 pounds...	1/2-inch, No. 8.....	194	.22	Do.
57 pounds...	1/2-inch, No. 12.....	214	.242	Do.

¢ Per pound

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Rivets and burrs, copper, in 1-lb boxes—Cont'd.			
70 pounds....	1-inch, No. 8.....	194	\$0.22	St. Louis.
51 pounds....	1-inch, No. 12.....	214	.242	Do.
62 pounds....	1-inch, No. 8.....	194	.22	Do.
41 pounds....	1-inch, No. 12.....	214	.242	Do.
	Rivets, iron, No. 7, oval head:			
24 pounds....	1-inch.....	158	.052	Chicago.
13 pounds....	1-inch.....	158	.05	Do.
17 pounds....	1-inch.....	158	.046	Do.
40 pounds....	1-inch.....	158	.042	Do.
	Rivets, iron, oval head:			
56 pounds....	No. 6 x 1 inch.....	158	.038	Do.
85 pounds....	No. 6 x 2 inches.....	158	.038	Do.
74 pounds....	No. 6 x 4 inches.....	158	.038	Do.
91 pounds....	No. 3 x 1 inch.....	158	.036	Do.
78 pounds....	No. 3 x 1 1/2 inches.....	158	.036	Do.
86 pounds....	No. 3 x 2 inches.....	158	.036	Do.
52 pounds....	No. 3 x 2 1/2 inches.....	158	.036	Do.
98 pounds....	No. 3 x 3 inches.....	158	.032	Do.
58 pounds....	No. 3 x 3 1/2 inches.....	158	.036	Do.
86 pounds....	No. 3 x 4 inches.....	158	.032	Do.
	Rivets, tinned iron, in packages of 1,000:			
18,000.....	10-ounce.....	214	.058	St. Louis.
12,000.....	12-ounce.....	214	.066	Do.
9,000.....	1-lb.....	214	.079	Do.
410.....	Rules, boxwood, 2-foot, 4-fold, full brass-bound.....	214	.232	Do.
7 1/2 dozen....	Saw blades, butcher's bow, 20-inch.....	194	1.75	Do.
	Saw sets, Morrill pattern, for:			
5.....	Crosscut saws.....	214	.40	Do.
15.....	Handsaws.....	214	.225	Do.
	Saws:			
51.....	Compass, 12-inch.....	158	.21	Chicago.
11.....	Back, 12-inch, blued back.....	214	.60	St. Louis.
21.....	Buck, complete, 30-inch blade, painted frames.....	214	.33	Do.
	Saws, circular, crosscut:			
3.....	26-inch.....	160	5.94	Do.
2.....	30-inch.....	160	7.52	Do.
	Saws, crosscut, with handles:			
16.....	5-foot.....	214	1.30	Do.
15.....	6-foot.....	158	1.57	Chicago.
	Saws, hand:			
114.....	26-inch, hollow back, 6 to 10 points to the inch.....	214	.90	St. Louis.
11.....	Meat, butcher's bow, 20-inch.....	158	.50	Chicago.
16.....	Rip, 28-inch, 4 1/2 and 5 points.....	214	1.00	St. Louis.
20.....	Scroll, frames and 1 dozen blades each.....	158	.25	Chicago.
3.....	Scales, butcher's, dial face, spring balance, square pan, 30-lb., by ounces.....	132	2.00	St. Louis.
	Scales, hay and cattle, standard platform:			
1.....	6-ton.....	81	90.40	Chicago.
2.....	10-ton.....	81	113.31	Do.
3.....	Scales, platform, counter, 240-lb.....	158	1.95	Do.
	Scales, platform, drop lever, on wheels:			
7.....	1,000-lb.....	158	16.75	Do.
1.....	2,000-pound.....	158	30.30	Do.
49 dozen....	Scissors, ladies', 6-inch, c. s., full size.....	194	2.40	St. Louis.
	Screw-drivers:			
64.....	6-inch steel blade running through handle.....	158	.16	Chicago.
41.....	8-inch steel blade running through handle.....	158	.2175	Do.
11.....	10-inch steel blade running through handle.....	214	.245	St. Louis.
	Screws, bench:			
26.....	Wrought-iron, 1 1/4-inch.....	194	.315	Do.
6.....	Wood, 2 1/4-inch.....	214	.298	Do.
	Screws, flat head, bright:			
69 gross....	1-inch, No. 4.....	194	.0687	Do.
77 gross....	1-inch, No. 5.....	158	.07	Chicago.
69 gross....	1-inch, No. 5.....	158	.07	Do.
63 gross....	1-inch, No. 6.....	158	.074	Do.
216 gross....	1-inch, No. 7.....	158	.06	Do.
130 gross....	1-inch, No. 8.....	158	.085	Do.
127 gross....	1-inch, No. 8.....	158	.09	Do.
108 gross....	1-inch, No. 9.....	158	.095	Do.
304 gross....	1-inch, No. 9.....	158	.10	Do.
124 gross....	1-inch, No. 10.....	158	.11	Do.
257 gross....	1 1/4-inch, No. 10.....	158	.117	Do.
114 gross....	1 1/4-inch, No. 11.....	158	.125	Do.
116 gross....	1 1/4-inch, No. 11.....	158	.135	Do.
64 gross....	1 1/4-inch, No. 12.....	158	.15	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Screws, flat head, bright—Continued.			
25 gross.....	1½-inch, No. 12.....	158	\$0.16	Chicago.
27 gross.....	1½-inch, No. 13.....	158	.18	Do.
37 gross.....	2-inch, No. 13.....	158	.20	Do.
18 gross.....	2-inch, No. 14.....	158	.22	Do.
16 gross.....	2-inch, No. 14.....	158	.24	Do.
8 gross.....	2-inch, No. 15.....	158	.28	Do.
18 gross.....	2-inch, No. 14.....	158	.26	Do.
8 gross.....	2-inch, No. 15.....	158	.26	Do.
16 gross.....	2-inch, No. 16.....	158	.38	Do.
8 gross.....	2-inch, No. 18.....	158	.50	Do.
	Shears, a. s., japanned handle, straight, trimmers:			
34 dozen.....	8-inch.....	214	3.50	St. Louis.
17 dozen.....	10-inch.....	158	5.68	Chicago.
	Shoes, horse, light, assorted, front and hind, per 100 pounds.			
1,300 pounds.....	No. 0.....	158	3.90	Do.
2,700 pounds.....	No. 1.....	8	3.90	Do.
3,650 pounds.....	No. 2.....	158	3.65	Do.
4,300 pounds.....	No. 3.....	8	3.65	Do.
3,700 pounds.....	No. 4.....	158	3.65	Do.
2,400 pounds.....	No. 5.....	8	3.65	Do.
1,000 pounds.....	No. 6.....	158	3.65	Do.
	Shoes, mule, per 100 pounds:			
300 pounds.....	No. 2.....	8	3.65	Do.
400 pounds.....	No. 3.....	8	3.65	Do.
150 pounds.....	No. 4.....	8	3.65	Do.
27 dozen.....	Shovels, fire, hand, long handle, heavy.....	158	.95	Do.
45 dozen.....	Springs, door, spiral, heavy, 13-inch.....	194	1.25	St. Louis.
	Squares:			
21.....	Framing, steel, 2 inches wide, with rafter scale.....	158	.71	Chicago.
12.....	Try, 4½-inch.....	158	.10	Do.
13.....	Try and miter, 7½-inch.....	158	.245	Do.
17.....	Try, 10-inch.....	214	.22	St. Louis.
103 dozen.....	Staples, wrought-iron, 3 inches long.....	158	.0225	Chicago.
	Steel, cast:			
55 pounds.....	½ x 3 inches.....	61	.06	Chicago, New York, or St. Louis.
100 pounds.....	½ x 4 inches.....	61	.06	Do.
77 pounds.....	½ x 1 inch.....	61	.06	Do.
	Steel, cast, octagon:			
160 pounds.....	1-inch.....	61	.06	Do.
405 pounds.....	1-inch.....	61	.065	Do.
500 pounds.....	1-inch.....	61	.06	Do.
975 pounds.....	1-inch.....	61	.06	Do.
825 pounds.....	1-inch.....	61	.06	Do.
150 pounds.....	1½-inch.....	61	.06	Do.
	Steel, cast, square:			
25 pounds.....	1-inch.....	61	.06	Do.
150 pounds.....	1-inch.....	61	.065	Do.
75 pounds.....	1-inch.....	61	.06	Do.
50 pounds.....	1-inch.....	61	.06	Do.
25 pounds.....	1-inch.....	61	.06	Do.
100 pounds.....	1½-inch.....	61	.06	Do.
125 pounds.....	2-inch.....	61	.06	Do.
	Steel, plow:			
100 pounds.....	½ x 3 inches.....	160	.0285	St. Louis.
100 pounds.....	½ x 5 inches.....	160	.0285	Do.
50 pounds.....	½ x 6 inches.....	160	.0285	Do.
	Steel, spring:			
100 pounds.....	½ x 1½ inches.....	160	.0275	Do.
100 pounds.....	½ x 1½ inches.....	160	.0275	Do.
50 pounds.....	½ x 2 inches.....	160	.0275	Do.
18.....	Steels, butcher's, 12-inch, stag handle, with swivel.....	194	.60	Do.
9 sets.....	Stocks and dies, blacksmith's, "Lightning" or equal, to cut 1, 1½, 2, 2½, 3, 3½, and 4 inch, complete with taps, in case.....	160	12.10	Do.
	Tacks, upholsterer's, full weight, per dozen papers:			
47 doz. papers.....	2-ounce.....	20	.165	Chicago.
34 doz. papers.....	3-ounce.....	20	.20	Do.
76 doz. papers.....	4-ounce.....	20	.225	Do.
65 doz. papers.....	6-ounce.....	20	.30	Do.
85 doz. papers.....	8-ounce.....	20	.375	Do.
37 doz. papers.....	10-ounce.....	20	.45	Do.
36 doz. papers.....	12-ounce.....	20	.525	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HAEDWARE—Continued:

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
263.....	Thermometers: Mercurial.....	232	\$0. 15	Chicago, New York, Rochester, or St. Louis.
106.....	Spirit.....	232	. 30	Do.
6.....	Trimmers, spoke, adjustable.....	158	. 45	Chicago.
27.....	Trowels, 10 $\frac{1}{2}$ -inch: Brick.....	158	. 28	Do.
19.....	Plastering.....	214	. 33	St. Louis.
3.....	Tuyeres (twers), iron, adjustable pattern, single, heavy, with cleaning drop. Vises, blacksmith's, solid box:	214	1. 23	Do.
6.....	6-inch jaw.....	160	6. 10	Do.
1.....	4 $\frac{1}{2}$ -inch jaw.....	160	3. 25	Do.
4.....	Square slide, 4-inch jaw.....	160	3. 36	Do.
137 pounds.....	Washers, iron, flat, for: 1-inch bolt.....	303	. 054	Do.
164 pounds.....	1-inch bolt.....	303	. 046	Do.
236 pounds.....	1-inch bolt.....	303	. 037	Do.
376 pounds.....	1-inch bolt.....	303	. 028	Do.
236 pounds.....	1-inch bolt.....	303	. 025	Do.
257 pounds.....	1-inch bolt.....	303	. 024	Do.
3,890 pounds.....	Waste, cotton, white.....	160	. 085	Do.
7.....	Wedges, wood chopper's, solid steel, per pound: 6-pound.....	158	. 0275	Chicago.
6.....	6-pound.....	158	. 0275	Do.
3.....	Well-wheels, 10-inch, heavy.....	214	. 17	St. Louis.
126 pounds.....	Wire, annealed, blued: No. 16.....	158	. 028	Chicago.
74 pounds.....	No. 20.....	158	. 04	Do.
64 pounds.....	No. 24.....	158	. 048	Do.
10 pounds.....	Wire, bright, iron: No. 3.....	194	. 0225	St. Louis.
126 pounds.....	No. 6.....	194	. 022	Do.
5 pounds.....	No. 7.....	194	. 022	Do.
426 pounds.....	No. 8.....	194	. 022	Do.
126 pounds.....	No. 9.....	194	. 022	Do.
325 pounds.....	No. 10.....	194	. 0225	Do.
75 pounds.....	No. 12.....	194	. 023	Do.
56 pounds.....	No. 14.....	194	. 0255	Do.
45 pounds.....	No. 18.....	194	. 036	Do.
31,760 lbs.....	Wire, two-point barbed, galvanized, main wires not larger than 12 $\frac{1}{2}$ gauge, barbs not larger than 13 $\frac{1}{2}$ gauge: For hog fence; space between barbs not to exceed 3 inches.....	214	. 02285	Chicago.
213,600 lbs.....	For cattle fence; space between barbs not to exceed 5 inches.....	214	. 02285	Do.
12,700 lbs.....	Wire-fence staples, steel, galvanized, 1-inch and 1 $\frac{1}{2}$ -inch.....	158	. 02275	Do.
50.....	Wire-fence stretchers.....	158	. 485	Do.
61.....	Wrenches, Coe's pattern, solid handle, screw, black: 8-inch.....	158	. 31 $\frac{1}{2}$	Do.
41.....	10-inch.....	158	. 38	Do.
33.....	12-inch.....	158	. 44	Do.
46.....	15-inch.....	158	. 76	Do.
10,000 lbs.....	Additional articles: Wire, fence, smooth, galvanized— No. 8.....	158	. 02075	Do.
5,000 pounds.....	No. 7.....	158	. 02075	Do.
9.....	Plumber's and steam and gas fitter's tools, fittings, and supplies: Cutters, pipe, 3-wheel— To cut $\frac{1}{2}$ to 1 inch.....	194	. 585	St. Louis.
14.....	To cut $\frac{1}{2}$ to 2 inches.....	194	. 78	Do.
10.....	Furnaces, blast, gasoline, combination, hot blast, complete, with melting pot. Ladies, wrought, double lip—	158	3. 60	Chicago.
7.....	4-inch.....	213	1. 25	Omaha.
4.....	6-inch.....	213	3. 00	Do.
32.....	Pliers, gas, forged— 6-inch.....	158	. 15	Chicago.
21.....	12-inch.....	158	. 28	Do.
3.....	Ratchets, sleeve— Handle 10 inches long.....	214	3. 18	St. Louis.
4.....	Handle 16 inches long.....	214	4. 15	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school book—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Plumber's and steam and gas fitter's tools, fittings, and supplies—Continued.			
	Reamers, pipe—			
5.....	$\frac{1}{2}$ -inch.....	158	\$0.20	Chicago.
4.....	$\frac{1}{2}$ -inch.....	158	.29	Do.
5.....	$\frac{1}{2}$ -inch.....	158	.35	Do.
5.....	$\frac{1}{2}$ -inch.....	158	.41	Do.
3.....	$\frac{1}{2}$ -inch.....	158	.51	Do.
	Reamers, pipe—			
3.....	2-inch.....	158	.69	Do.
	Stocks and dies, pipe, adjustable—			
7 sets.....	$\frac{1}{2}$ to 1 inch.....	214	2.50	St. Louis.
6 sets.....	$\frac{1}{2}$ to 2 inches.....	214	4.20	Do.
	Taps, pipe—			
7.....	$\frac{1}{2}$ -inch.....	158	.20	Chicago.
3.....	$\frac{1}{2}$ -inch.....	158	.28	Do.
7.....	1-inch.....	158	.34	Do.
7.....	1-inch.....	158	.41	Do.
7.....	1-inch.....	158	.51	Do.
6.....	2-inch.....	158	.69	Do.
2.....	Vices, pipe, malleable iron, hinged, to hold $\frac{1}{2}$ to 2 inch pipe.	159	1.05	Do.
	Wrenches, pipe, Stillson pattern—			
28.....	10-inch.....	109	.52	St. Louis.
43.....	18-inch.....	214	.9375	Do.
	Pipe fittings:			
	Bibbs, Fuller pattern, lever handle, plain, finished, pipe thread—			
140.....	$\frac{1}{2}$ -inch.....	213	.315	Omaha.
150.....	$\frac{1}{2}$ -inch.....	226	.43	St. Louis.
21.....	1-inch.....	226	1.14	Do.
	Bibbs, compression, plain, finished, pipe thread—			
245.....	$\frac{1}{2}$ -inch.....	158	.25	Chicago.
475.....	$\frac{1}{2}$ -inch.....	226	.43	St. Louis.
8.....	1-inch.....	158	.83	Chicago.
6.....	Bibbs, compression, plain, finished, with thimbles, for lead pipe, $\frac{1}{2}$ -inch.	158	.36	Do.
	Bushings, malleable iron—			
545.....	$\frac{1}{2}$ x $\frac{1}{2}$ inch.....	159	.0119	Do.
514.....	$\frac{1}{2}$ x 1 inch.....	159	.0143	Do.
407.....	1 x $\frac{1}{2}$ inches.....	159	.0167	Do.
315.....	$\frac{1}{2}$ x $\frac{1}{2}$ inches.....	159	.0214	Do.
291.....	$\frac{1}{2}$ x 2 inches.....	159	.0333	Do.
	Caps, malleable iron, black—			
156.....	$\frac{1}{2}$ -inch.....	159	.0128	Do.
144.....	$\frac{1}{2}$ -inch.....	159	.0195	Do.
122.....	1-inch.....	159	.0295	Do.
98.....	$\frac{1}{2}$ -inch.....	159	.0308	Do.
59.....	1-inch.....	159	.0434	Do.
59.....	2-inch.....	159	.0684	Do.
	Caps, malleable iron, galvanized—			
151.....	$\frac{1}{2}$ -inch.....	159	.0193	Do.
187.....	$\frac{1}{2}$ -inch.....	159	.028	Do.
128.....	1-inch.....	159	.0439	Do.
118.....	$\frac{1}{2}$ -inch.....	159	.0496	Do.
94.....	1-inch.....	159	.0695	Do.
95.....	2-inch.....	159	.1101	Do.
	Couplings, boiler, with unions, malleable iron, straight—			
48.....	$\frac{1}{2}$ x $\frac{1}{2}$ inch.....	159	.096	Do.
30.....	$\frac{1}{2}$ x 1 inch.....	159	.12	Do.
17.....	$\frac{1}{2}$ x 1 inch.....	159	.12	Do.
	Couplings, wrought iron, black—			
113.....	$\frac{1}{2}$ -inch.....	159	.0158	Do.
115.....	$\frac{1}{2}$ -inch.....	159	.0225	Do.
74.....	1-inch.....	159	.0292	Do.
55.....	$\frac{1}{2}$ -inch.....	159	.0383	Do.
49.....	1-inch.....	159	.0473	Do.
47.....	2-inch.....	159	.0630	Do.
	Couplings, wrought iron, galvanized—			
222.....	$\frac{1}{2}$ -inch.....	159	.0225	Do.
311.....	$\frac{1}{2}$ -inch.....	159	.0292	Do.
204.....	1-inch.....	159	.0405	Do.
128.....	$\frac{1}{2}$ -inch.....	159	.0562	Do.
88.....	1-inch.....	159	.072	Do.
107.....	2-inch.....	159	.09	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Pipe fittings—Continued.			
22.....	Couplings, R. & L., malleable iron, black—	159	\$0.0171	Chicago.
24.....	1-inch.....	159	.0266	Do.
	Couplings, R. & L., malleable iron, galvanized—			
12.....	1-inch.....	159	.026	Do.
30.....	1-inch.....	159	.0399	Do.
18.....	1-inch.....	159	.0451	Do.
	Crosses, malleable iron, black—			
41.....	1-inch.....	159	.0389	Do.
71.....	1-inch.....	159	.0532	Do.
66.....	1-inch.....	159	.0912	Do.
52.....	1½-inch.....	159	.089	Do.
	Crosses, malleable iron, galvanized—			
57.....	1-inch.....	159	.0558	Do.
96.....	1-inch.....	159	.0771	Do.
100.....	1-inch.....	159	.1317	Do.
56.....	1½-inch.....	159	.1444	Do.
14.....	1½-inch.....	159	.1841	Do.
12.....	2-inch.....	159	.3159	Do.
	Elbows, malleable iron, black—			
161.....	1-inch.....	159	.0257	Do.
246.....	1-inch.....	159	.0228	Do.
237.....	1-inch.....	159	.0387	Do.
176.....	1½-inch.....	159	.0633	Do.
118.....	1½-inch.....	159	.077	Do.
112.....	2-inch.....	159	.1322	Do.
	Elbows, malleable iron, galvanized—			
440.....	1-inch.....	159	.0373	Do.
720.....	1-inch.....	159	.0369	Do.
425.....	1-inch.....	159	.065	Do.
237.....	1½-inch.....	159	.1056	Do.
152.....	1½-inch.....	159	.1264	Do.
132.....	2-inch.....	159	.212	Do.
	Elbows, boiler, with unions, malleable iron, bent—			
17.....	1 x 1 x 1 inch.....	159	.096	Do.
29.....	1 x 1 x 1 inch.....	159	.12	Do.
17.....	1 x 1 x 1 inch.....	159	.12	Do.
	Elbows, R. & L., malleable iron, black—			
6.....	1-inch.....	159	.0257	Do.
18.....	1-inch.....	159	.038	Do.
6.....	1-inch.....	159	.0846	Do.
6.....	1½-inch.....	159	.0633	Do.
6.....	1½-inch.....	159	.077	Do.
6.....	2-inch.....	159	.1322	Do.
	Elbows, R. & L., malleable iron, galvanized—			
24.....	1-inch.....	159	.0373	Do.
24.....	1-inch.....	159	.0546	Do.
30.....	1-inch.....	213	.0945	Omaha.
6.....	1½-inch.....	159	.1056	Chicago.
6.....	1½-inch.....	159	.1264	Do.
6.....	2-inch.....	159	.212	Do.
	Elbows, side outlet, malleable iron, black—			
30.....	1-inch.....	159	.0266	Do.
51.....	1-inch.....	159	.0456	Do.
30.....	1-inch.....	159	.0722	Do.
30.....	1½-inch.....	159	.0969	Do.
9.....	1½-inch.....	159	.1397	Do.
6.....	2-inch.....	159	.209	Do.
	Elbows, side outlet, malleable iron, galvanized—			
71.....	1-inch.....	213	.0305	Omaha.
91.....	1-inch.....	213	.0675	Do.
49.....	1-inch.....	159	.1038	Chicago.
37.....	1½-inch.....	159	.1437	Do.
7.....	1½-inch.....	159	.1965	Do.
7.....	2-inch.....	159	.3059	Do.
	Gas service cocks, brass, female—			
30.....	1-inch.....	158	.25	Do.
12.....	1-inch.....	158	.33	Do.
4.....	1½-inch.....	158	.49	Do.
	Nipples, shoulder, wrought iron, black—			
263.....	1-inch.....	159	.908	Do.
323.....	1-inch.....	159	.0096	Do.
311.....	1-inch.....	159	.0128	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Pipe fittings—Continued.			
	Nipples, shoulder, wrought iron, black—Con.			
290.....	1½-inch.....	159	\$0.0176	Chicago.
196.....	1½-inch.....	159	.0208	Do.
189.....	2-inch.....	159	.0288	Do.
	Nipples, shoulder, wrought iron, galvanized—			
290.....	1-inch.....	159	.0096	Do.
345.....	1-inch.....	159	.0128	Do.
285.....	1-inch.....	159	.0176	Do.
154.....	1½-inch.....	159	.0272	Do.
117.....	1½-inch.....	159	.0336	Do.
125.....	2-inch.....	159	.0432	Do.
	Pipe, wrought iron, black—			
1,800 feet.....	1-inch.....	159	.0225	Do.
4,200 feet.....	1-inch.....	159	.0259	Do.
3,200 feet.....	1-inch.....	159	.0371	Do.
2,260 feet.....	1½-inch.....	159	.0506	Do.
1,800 feet.....	1½-inch.....	159	.0608	Do.
1,350 feet.....	2-inch.....	159	.081	Do.
	Pipe, wrought iron, galvanized—			
4,770 feet.....	1-inch.....	159	.0327	Do.
11,330 feet.....	1-inch.....	159	.0374	Do.
6,140 feet.....	1-inch.....	159	.0530	Do.
3,330 feet.....	1½-inch.....	159	.0731	Do.
3,000 feet.....	1½-inch.....	159	.0878	Do.
2,540 feet.....	2-inch.....	159	.117	Do.
	Pipe, lead, per pound—			
70 feet.....	1-inch.....	158	.0575	Do.
20 feet.....	1-inch.....	158	.0575	Do.
170 feet.....	1-inch.....	158	.0575	Do.
60 feet.....	1½-inch.....	158	.0575	Do.
95 feet.....	1½-inch.....	158	.0575	Do.
100 feet.....	2-inch.....	158	.0575	Do.
	Plugs, cast iron, black—			
210.....	1-inch.....	159	.0045	Do.
200.....	1-inch.....	159	.0068	Do.
190.....	1-inch.....	159	.009	Do.
140.....	1½-inch.....	159	.0113	Do.
100.....	1½-inch.....	159	.0158	Do.
87.....	2-inch.....	159	.0225	Do.
	Plugs, cast iron, galvanized—			
190.....	1-inch.....	159	.009	Do.
210.....	1-inch.....	159	.0135	Do.
200.....	1-inch.....	159	.018	Do.
126.....	1½-inch.....	159	.0225	Do.
54.....	1½-inch.....	159	.0315	Do.
47.....	2-inch.....	159	.045	Do.
	Reducers, malleable iron, black—			
138.....	1 x 1 inch.....	159	.0223	Do.
130.....	1 x 1 inch.....	159	.0314	Do.
93.....	1 x 1½ inches.....	159	.0354	Do.
80.....	1½ x 1½ inches.....	159	.0502	Do.
56.....	1½ x 2 inches.....	159	.0627	Do.
	Reducers, malleable iron, galvanized—			
240.....	1 x 1 inch.....	159	.0333	Do.
250.....	1 x 1 inch.....	159	.0479	Do.
200.....	1 x 1½ inches.....	159	.0632	Do.
94.....	1½ x 1½ inches.....	159	.083	Do.
76.....	1½ x 2 inches.....	159	.1372	Do.
	Stopcocks, brass, steam—			
46.....	1-inch.....	158	.38	Do.
35.....	1-inch.....	158	.52	Do.
12.....	1½-inch.....	158	.81	Do.
9.....	1½-inch.....	158	1.06	Do.
10.....	2-inch.....	158	1.80	Do.
38 dozen.....	Straps, tinned, for ½, ¾, 1, 1½, 1½, and 2 inch pipe, per pound.	213	.08	Omaha.
	Tees, malleable iron, black—			
123.....	1-inch.....	213	.0275	Do.
123.....	1-inch.....	159	.026	Chicago.
132.....	1-inch.....	159	.0408	Do.
124.....	1½-inch.....	159	.0718	Do.
89.....	1½-inch.....	159	.1095	Do.
64.....	2-inch.....	213	.15	Omaha.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARDWARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Pipe fittings—Continued.			
	Tees, malleable iron, galvanized—			
255.....	1-inch.....	213	\$0.04	Omaha.
365.....	1-inch.....	159	.0438	Chicago.
285.....	1-inch.....	159	.0668	Do.
143.....	1½-inch.....	159	.1192	Do.
77.....	1½-inch.....	213	.125	Omaha.
67.....	2-inch.....	159	.2482	Chicago.
	Tees, cross, malleable iron, black—			
14.....	1-inch.....	159	.039	Do.
48.....	1-inch.....	213	.06	Omaha.
12.....	1-inch.....	213	.075	Do.
7.....	1½-inch.....	159	.089	Chicago.
5.....	1½-inch.....	159	.1112	Do.
4.....	2-inch.....	159	.1938	Do.
	Tees, cross, malleable iron, galvanized—			
24.....	1-inch.....	159	.0659	Do.
41.....	1-inch.....	213	.0725	Omaha.
29.....	1-inch.....	213	.1125	Do.
7.....	1½-inch.....	159	.1444	Chicago.
7.....	1½-inch.....	159	.1841	Do.
7.....	2-inch.....	159	.3159	Do.
	Unions, malleable iron, black—			
190.....	1-inch.....	213	.0495	Omaha.
170.....	1-inch.....	159	.0642	Chicago.
175.....	1-inch.....	159	.0784	Do.
126.....	1½-inch.....	159	.1093	Do.
120.....	1½-inch.....	159	.1378	Do.
76.....	2-inch.....	159	.1782	Do.
	Unions, malleable iron, galvanized—			
183.....	1-inch.....	159	.0784	Do.
280.....	1-inch.....	159	.085	Do.
235.....	1-inch.....	159	.1188	Do.
130.....	1½-inch.....	159	.1663	Do.
67.....	1½-inch.....	159	.2138	Do.
84.....	2-inch.....	159	.2732	Do.
	Valves, gate, high pressure—			
195.....	1-inch.....	213	.325	Omaha.
284.....	1-inch.....	213	.4375	Do.
200.....	1-inch.....	213	.625	Do.
94.....	1½-inch.....	213	.875	Do.
29.....	1½-inch.....	213	1.25	Do.
50.....	2-inch.....	213	1.875	Do.
	Valves, globe, high pressure—			
96.....	1-inch.....	288	.26	Chicago, New York, Omaha, or St. Louis.
200.....	1-inch.....	288	.32	Do.
97.....	1-inch.....	288	.46	Do.
54.....	1½-inch.....	288	.65	Do.
31.....	1½-inch.....	288	.90	Do.
28.....	2-inch.....	288	1.36	Do.
	Hose goods:			
	Couplings, hose, cast brass—			
121.....	1-inch.....	158	.06	Chicago.
5.....	2-inch.....	166	.65	St. Louis.
11.....	2½-inch.....	182	1.20	Chicago.
	Hose clamps, brass—			
26 dozen.....	For 1-inch hose.....	158	.21	Do.
1 dozen.....	For 1½-inch hose.....	158	.75	Do.
2 dozen.....	For 1½-inch hose.....	158	.90	Do.
2 dozen.....	For 2-inch hose.....	158	1.20	Do.
2½ dozen.....	For 2½-inch hose.....	158	2.10	Do.
9,350 feet.....	Hose, rubber, garden, ½-inch, in lengths of 50 feet, coupled.....	158	.0775	Do.
	Hose, cotton, rubber-lined, in lengths of 50 feet, coupled—			
600 feet.....	1½-inch.....	182	.16	Do.
650 feet.....	1½-inch.....	182	.175	Do.
1,850 feet.....	2-inch.....	166	.23	St. Louis.
2,550 feet.....	Hose, cotton, rubber-lined, 2½-inch, double jacket, in lengths of 50 feet, coupled.....	166	.57	Do.
77.....	Nozzles, hose, screw, combination, ½-inch.....	182	.22	Chicago.
	Nozzles, hose, screw—			
3.....	1½-inch.....	166	.50	St. Louis.
2.....	1½-inch.....	166	.60	Do.
11.....	2½-inch.....	166	1.80	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

ENAMELED WARE, LAMPS, ETC.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
166 dozen.....	Bowls, white enamel ware:	158	\$1.05	Chicago.
165 dozen.....	Pint.....	158	1.35	Do.
	Quart.....			
3 dozen.....	Burners, lamp, heavy, Sun:	243	.495	New York.
51 dozen.....	No. 1.....	243	.605	Do.
73.....	No. 2.....	158	.37	Chicago.
	Chambers, with covers, white enamel ware; size 9½ x 5 inches.			
	Crocks, with covers; stoneware, acid fruit, glaze lining:			
154.....	1-gallon.....	291	.20	Do.
200.....	2-gallon.....	291	.30	Do.
244.....	3-gallon.....	291	.40	Do.
35 dozen.....	Cruets, vinegar, glass.....	21	1.75	New York.
518 dozen.....	Cups, tea, white enamel ware; diameter not less than 3½ inches nor more than 4½ inches; depth not less than 2½ inches nor more than 3½ inches.	158	1.05	Chicago.
	Dishes, meat, white enamel ware:			
268.....	Not less than 14 inches nor more than 15 inches in length	243	.218	New York
219.....	Not less than 16 inches nor more than 17 inches in length	243	.257	Do.
981.....	Dishes, vegetable, oblong, without covers, white enamel ware, not less than 14 x 10 inches.	243	.408	Do.
	Globes:			
37 dozen.....	Lantern, tubular, safety, No. 0.....	214	.45	St. Louis.
16.....	For tubular street lamps, No. 3.....	158	.30	Chicago.
66.....	Lamp shades, porcelain, 7-inch, for student's lamps.	158	.10	Do.
	Lamps:			
260.....	Bracket, heavy metal, with cup and thumb-screw for reflector, complete, with glass fount, No. 2, sun-burner and chimney, and 8-inch glass reflector and oil gauge.	158	.48	Do.
55.....	Hall, hanging, extension, complete, with 10-inch frosted globe, No. 2 fount, No. 2 sun-burner and chimney.	281	¢ 1.80	New York.
63.....	Student's, "Perfection," No. 1, complete with opal shade and chimney.	243	2.99	Do.
45.....	Lamps, street, tubular, globe, No. 3, with burner and time gauge, complete.	281	¢ 3.15	Do.
	Lamp chimneys, sun-burner, pure lead glass:			
1 dozen.....	No. 1.....	158	.55	Chicago.
227 dozen.....	No. 2.....	158	.69	Do.
83 dozen.....	For "Perfection" No. 1, student's lamp.	158	.69	Do.
8 dozen.....	For No. 96 B and H Mammoth lamp; pure lead glass.	158	1.65	Do.
55 dozen.....	For No. 2 B and H lamp; pure lead glass.	158	.89	Do.
	Lampwicks:			
10 dozen.....	No. 0.....	194	.01½	St. Louis.
20 dozen.....	No. 1.....	194	.02	Do.
123 dozen.....	No. 2.....	194	.0275	Do.
50 dozen.....	For "Perfection" No. 1 student's lamp.	194	.08	Do.
24 dozen.....	For tubular street lamp, No. 3.....	194	.0475	Do.
6 dozen.....	For No. 96 B and H Mammoth lamp.	281	.72	New York.
36 dozen.....	For No. 2 B and H lamp.	281	.30	Do.
269.....	Lanterns, tubular, safety.....	214	.3125	St. Louis.
133 dozen.....	Pepper sprinklers, glass.....	243	.79	New York.
	Pitchers, white enamel ware:			
264.....	Pint.....	277	.28	Chicago.
382.....	Quart.....	243	.347	New York.
53 dozen.....	Pitchers, sirup, glass, pint, metal top.....	281	¢ 2.22	Do.
	Pitchers, water, white enamel ware:			
498.....	2-quart.....	281	¢ .41	Do.
730.....	3-quart.....	277	.47	Chicago.
345.....	Pitchers, washbowl, to hold 5 quarts, white enamel ware.	158	.645	Do.
	Plates, white enamel ware:			
333 dozen.....	Dinner, diameter not less than 9½ inches nor more than 10½ inches.	158	1.05	Do.
250 dozen.....	Sauce.....	281	¢ 1.05	New York.
67 dozen.....	Soup, not less than 9½ inches nor more than 10½ inches.	158	1.05	Chicago.
28.....	Reflectors, for bracket lamps; diameter 8 inches.	281	¢ .14	New York.
294 dozen.....	Saucers, tea, white enamel ware; diameter not less than 5½ inches nor more than 5½ inches.	158	.725	Chicago.

¢ Only.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

ENAMELED WARE, LAMPS, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
363 dozen.....	Tumblers, glass, plain, medium heavy, not less than 3 inches in diameter and 3 inches in depth. Washbowls, white enamel ware.	21	\$0.42	New York.
344.....	Diameter not less than 15½ inches.....	243	.298	Do.
117.....	Diameter not less than 12 inches.....	158	.15	Chicago.
62.....	Diameter not less than 14 inches.....	158	.20	Do.

FURNITURE AND WOODEN WARE.

990.....	Baskets, clothes, whole willow, large, extra quality.	158	\$0.56	Chicago.
91.....	Baskets, measuring, rattan or galvanized iron: ½-bushel.....	158	.23	Do.
193.....	1-bushel.....	243	.283	New York.
114.....	Bedsteads, double, 6 feet 4 inches long inside and 4 feet wide; head and foot ends of butt-welded standard pipe, each end having butt-welded pipe cross rods and solid round steel uprights: fabric "National" thoroughly coated with pure tin, applied by the molten-bath process after assembling.	248	5.75	Chicago.
	Bedsteads, single, wrought-iron frame; fabric "National," thoroughly coated with pure tin applied by the molten-bath process after assembling:			
353.....	Height from floor, 27 inches.....	20	4.47	Do.
1,033.....	Height from floor, 17 inches.....	20	4.47	Do.
54.....	Bowls, wooden, chopping, round: 14-inch.....	158	4.17	Do.
90.....	17-inch.....	158	.33	Do.
890 dozen.....	Brooms: 5-sewed, to weigh not less than 27 pounds per dozen, extra quality.	165	3.98	New York.
125 dozen.....	Whisk.....	20	1.23	Chicago.
254 dozen.....	Brushes, scrub, 6-row, 10-inch, Tampico.....	214	.84	St. Louis.
	Brushes, shoe, horsehair:			
80 dozen.....	Dauber.....	20	.57	Chicago.
60 dozen.....	Polishing.....	214	1.25	St. Louis.
30 dozen.....	Brushes, stove, 5-row, 10-inch.....	194	.74	Do.
38.....	Buckets, well, oak, extra strong.....	158	.33	Chicago.
148.....	Bureaus, with glass, with dovetailed drawers and brass handles.	86	4.75	Do.
	Chairs:			
86.....	Typewriter, oak; mounted with a swivel, adjustable as to height, without arms, and back so made as to become a support at all times to the back of the operator.	20	3.77	Do.
97 dozen.....	Solid oak, long post; wood seat 1½-inch thick, eight stretchers in frame, six flat spindles in back, back post gained for seat and screwed to seat; a brace from seat to back post on each side, screwed to both; top slat to be quarter-sawed oak without ornamentation, and to be fastened to back posts with two screws in each post; finish to be natural stain or varnish.	20	12.30	Do.
80 dozen.....	Wood, bow back, 4 spindles to back.....	86	7.08	Do.
43.....	Wood, office, bow back and back set arms, revolving and tilting, with casters.	20	3.37	Do.
127.....	Chiffoniers, oak, without glass.....	86	6.75	Do.
18.....	Churns, barrel, revolving, to churn 5 gallons.....	158	2.05	Do.
125.....	Clocks, 8-day, pendulum or spring lever.....	158	2.49	Do.
20 000 feet.....	Clothesline, galvanized wire, No. 18, hollow center, in lengths of 100 feet, per 100 feet.	158	.25	Do.
479 gross.....	Clothespins, spring, U. S. pattern or equal.....	194	.33	St. Louis.
28.....	Desks, office, medium size and quality.....	20	10.75	Chicago.
	Desks, school, with seats, single:			
20.....	No. 1, for scholars 18 to 21 years old.....	200	1.70	(e)
36.....	No. 2, for scholars 15 to 18 years old.....	200	1.70	(e)
86.....	No. 3, for scholars 13 to 15 years old.....	200	1.60	(e)

• 15-inch.

• Burlaped.

• Chicago delivery, add \$0.12 desk; St. Louis delivery, add \$0.18 desk; St. Paul delivery, add \$0.32 desk; Sioux City delivery, add \$0.43 desk; Kansas City delivery, add \$0.41 desk.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

FURNITURE AND WOODEN WARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Desks, school, with seats, single—Continued.			
61.....	No. 4, for scholars 11 to 13 years old.....	200	\$1.60	(a)
67.....	No. 5, for scholars 8 to 11 years old.....	200	1.50	(a)
38.....	No. 6, for scholars 5 to 8 years old.....	200	1.50	(a)
	Desks, school, back seats for, single:			
11.....	No. 1.....	200	1.40	(a)
17.....	No. 2.....	200	1.40	(a)
14.....	No. 3.....	200	1.40	(a)
24.....	No. 4.....	200	1.40	(a)
8.....	No. 5.....	200	1.40	(a)
16.....	Desks, teacher's, medium size and quality.....	20	9.25	Chicago.
62 dozen.....	Dusters, counter, bristle or horsehair.....	243	2.43	New York.
	Machines, sewing, Singer or Home:			
103.....	Family, with cover and accessories.....	165	17.00	Chicago.
6.....	Tailor's, with attachments.....	165	22.60	Do.
167.....	Mattresses, double, 76 inches long, 48 inches wide, with a boxing of 4½ inches.....	75	2.89	Omaha.
2,300.....	Mattresses, single, 76 inches long, 30 inches wide, with a boxing of 4½ inches.....	75	2.79	Do.
	Measures, wood, iron-bound, or all iron, galvanized:			
11.....	1-peck.....	158	.15	Chicago.
19.....	¼-bushel.....	281	.27	New York.
238.....	Mirrors, plain oak frame, bevel glass; glass to measure not less than 15 x 18 inches.....	130	1.15	Chicago.
127 dozen.....	Mopsticks, best quality, extra heavy.....	165	1.67	New York.
9.....	Pails, oak, three iron hoops, heavy, stable pattern.....	158	.40	Chicago.
1,332.....	Pillows, 20 x 30 inches, 3 lbs. each, all S. A. hair, or all fiber filling; ticking to be A. C. A. grade.....	234	.91	Do.
90.....	Rolling-pins, 2½ x 13 inches, exclusive of handle.....	158	.07	Do.
2,600 pounds.....	Rope, manila, subject to actual tare, Boston, boltrope, ½-inch.....	165	.0837	Do.
	Rope, manila, subject to actual tare:			
3,500 pounds.....	1-inch.....	158	.08	Do.
2,075 pounds.....	1-inch.....	158	.08	Do.
2,700 pounds.....	1-inch.....	158	.08	Do.
3,120 pounds.....	1-inch.....	158	.08	Do.
870 pounds.....	1½-inch.....	158	.08	Do.
586 pounds.....	Sash cord, braided cotton, No. 8.....	158	.27	Do.
30 dozen.....	Stools, wood; all-wood seat; height 18 inches; joints in seat to be outside of leg mortise.....	86	6.48	Do.
	Washboards, all metal:			
287.....	No. 1, family size.....	115	.27	Omaha or St. Louis.
186.....	No. 3, laundry size.....	115	.27	Do.
106.....	Washstands, wood; large drawer and closet with two small drawers at the side; without glass.....	86	4.85	Chicago.
99.....	Washing machines, "Boss" No. 5 or equal, extra heavy, well crated.....	158	6.00	Do.
	Washtubs, wood, inside not painted:			
12.....	20½ inches in diameter by 9½ inches deep, inside measurement.....	158	.68	Do.
14.....	23 inches in diameter by 10½ inches deep, inside measurement.....	158	.75	Do.
13.....	25 inches in diameter by 11½ inches deep, inside measurement.....	158	1.01	Do.
120.....	Wringers, clothes, wood frame; rolls 12 x 1½ inches.....	20	2.3775	Do.

HARNESS, LEATHER, SHOE FINDINGS, SADDLERY, ETC.

5 dozen.....	Awl hafts, patent, pegging.....	214	\$0.35	St. Louis.
5½ dozen.....	Awl hafts, patent, sewing.....	152	3.80	Chicago.
9 dozen.....	Harness.....	158	.38	Do.
	Shoemaker's:			
38 dozen.....	Awls, assorted:			
70 dozen.....	Patent, pegging.....	158	.025	Do.
22 dozen.....	Regular, harness, sewing.....	152	.17	Do.
	Patent, sewing, regular, shoemaker's.....	158	.05	Do.
	Awls, with riveted handles:			
1 dozen.....	Round, pad, shouldered.....	158	3.50	Do.
1 dozen.....	Saddler's, collar.....	158	2.90	Do.

* Chicago delivery, add \$0.12 desk; St. Louis delivery, add \$0.18 desk; St. Paul delivery, add \$0.32 desk; Sioux City delivery, add \$0.43 desk; Kansas City delivery, add \$0.41 desk.

† Only.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARNESS, LEATHER, SHOE FINDINGS, SADDLERY, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Bits, loose ring, X. C., heavy mouthpiece:			
58 dozen.....	2½-inch jointed	158	\$0.98	Chicago.
6½ dozen.....	2½-inch stiff	158	.98	Do.
7,160 boxes.....	Blacking, shoe	20	.0325	Do.
4,465 boxes.....	Paste polish, for shoes.....	177	.045	St. Louis.
225.....	Blankets, horse.....	20	1.52	Chicago.
42.....	Bridles, riding.....	150	1.08	Do.
367.....	Brooms, stable, with handles.....	152	.38	Do.
107.....	Brushes, horse, leather backs.....	105	.98	New York.
33 dozen.....	Buckles, Texas, breast strap, buckle snaps and buckles, malleable iron, X. C., 1½-inch.	194	.56	St. Louis.
	Buckles, bar rein, with roller, malleable iron, X. C.:			
10 gross.....	1-inch.....	214	.66	Do.
14 gross.....	2-inch.....	152	.90	Chicago.
15 gross.....	2-inch.....	194	1.02	St. Louis.
29 gross.....	1-inch.....	152	1.32	Chicago.
	Buckles, harness, sensible, malleable iron, X. C.:			
7 gross.....	1-inch.....	214	.38	St. Louis.
2½ gross.....	1-inch.....	152	.48	Chicago.
8½ gross.....	2-inch.....	214	.61	St. Louis.
2½ gross.....	1-inch.....	214	.85	Do.
8½ gross.....	1-inch.....	152	1.10	Chicago.
12½ gross.....	1½-inch.....	152	1.78	Do.
5½ gross.....	1½-inch.....	152	2.25	Do.
2 gross.....	Buckles, roller, girth, malleable iron, X. C., 1½-inch.	158	1.43	Do.
	Buckles, roller, harness, malleable iron, X. C.:			
2½ gross.....	1-inch.....	152	.42	Do.
5½ gross.....	1-inch.....	152	.50	Do.
12 gross.....	2-inch.....	152	.60	Do.
12 gross.....	1-inch.....	152	.68	Do.
18 gross.....	1-inch.....	152	.77	Do.
14 gross.....	1½-inch.....	152	1.15	Do.
10 gross.....	1½-inch.....	152	1.44	Do.
7½ gross.....	1½-inch.....	158	1.72	Do.
7½ gross.....	2-inch.....	152	2.00	Do.
	Buckles, roller, trace, X. C.:			
½ dozen.....	1½-inch.....	158	.29	Do.
½ dozen.....	1½-inch.....	158	.31	Do.
	Buckles, trace, 3-loop, Champion, X. C.:			
1 dozen pairs.....	1½-inch.....	194	.72	St. Louis.
50 dozen pairs.....	1½-inch.....	152	.88	Chicago.
½ dozen pairs.....	2-inch.....	194	1.20	St. Louis.
18 dozen.....	Cement, leather, 2-ounce bottles, best quality, clarified.	214	.55	Do.
80.....	Chains, halter, with snap and swivel, 6 feet long.	158	.19	Chicago.
54.....	Cinches, hair, 4½ to 5 inches wide.....	152	.30	Do.
	Clips:			
42 dozen.....	Hame, team, japanned.....	214	.14	St. Louis.
48 dozen.....	Trace, polished, 4½-inch, malleable iron.....	158	.24	Chicago.
	Cockeyes, screwed, X. C.:			
15 dozen.....	1½-inch.....	158	.26	Do.
111 dozen.....	1½-inch.....	158	.29	Do.
15 dozen.....	1½-inch.....	158	.37	Do.
3 dozen.....	2-inch.....	158	.45	Do.
	Collars, horse, by half inch:			
152.....	17 to 19 inches.....	152	1.75	Do.
111.....	19½ to 21 inches.....	152	1.80	Do.
39.....	21½ to 24 inches.....	152	1.90	Do.
34.....	Collars, mule, 15 to 16½ inches, by half inch.....	152	1.60	Do.
21 dozen.....	Currycombs, tinned iron, 8 bars.....	214	.93	St. Louis.
7½ gross.....	Gig saddle bolt hooks, band, X. C.....	152	3.96	Chicago.
155.....	Halters, all leather.....	202	.87	Chicago, New York, or St. Louis.
20 pounds.....	Hair, gray goat.....	152	.08	Chicago.
707 pairs.....	Hames, No. 6, Concord, sizes 18 to 22 inches, wood, high top, solid steel backs, 1-inch holes, hold-back plates and trimmings.	202	.59	Chicago, New York, or St. Louis.
	Harness, double, complete, Concord hames:			
65 sets.....	With breeching.....	254	31.40	Chicago.
18 sets.....	Without breeching.....	254	27.54	Do.
47 sets.....	Harness, plow, double, with backband and collars, Concord hames.	150	16.65	Do.
1 dozen.....	Hooks, hame.....	152	.47	Do.
½ dozen.....	Knives, draw, gauge, brass, etc.....	152	17.70	Do.

• With hip straps.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARNESS, LEATHER, SHOE FINDINGS, SADDLERY, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
$\frac{1}{4}$ dozen.....	Knives, oval handle:			
$\frac{1}{4}$ dozen.....	Head, $\frac{1}{4}$ -inch.....	158	\$5.30	Chicago.
	Round, $\frac{1}{4}$ -inch.....	152	14.00	Do.
	Knives:			
18 dozen.....	Shoe, square point, paring, 4-inch blade.....	158	.99	Do.
2.....	Splitting, 10-inch, iron frame.....	152	5.00	Do.
$\frac{1}{4}$ dozen.....	Straight, harness maker's.....	152	1.90	Do.
15.....	Layer creasers, octagon, Nos. 0, 1, 2, 3, 4, 5.....	152	.45	Do.
	Leather:			
542 pounds.....	Callockin, to run $1\frac{1}{2}$ to $2\frac{1}{2}$ pounds per side, medium thickness.....	90	1.15	San Francisco.
12,560 pounds	Harness, oak-tanned, heads on (15 to 23 pounds per side).....	120	.41	Chicago, New York, or St. Louis.
230 pounds.....	Kip (about 5-pound sides).....	90	.775	San Francisco.
	Leather, sole (18 to 25 pounds per side):			
2,980 pounds.....	Hemlock.....	91	.32	Chicago.
10,860 pounds	Oak.....	295	.37	Do.
27 doz. papers	Needles, harness, assorted, 4, 5, and 6.....	152	.60	Do.
	Nails, saddle, Hungarian, tinned:			
6 pounds.....	$\frac{1}{2}$ -inch.....	152	.13	Do.
27 pounds.....	$\frac{1}{2}$ -inch.....	152	.13	Do.
21 pounds.....	$\frac{1}{2}$ -inch.....	152	.13	Do.
	Nails, shoe, "Holdfast" or equal, wire, clinching, sizes:			
81 pounds.....	3-8.....	214	.089	St. Louis.
56 pounds.....	3-8.....	214	.089	Do.
240 pounds.....	4-8.....	214	.089	Do.
108 pounds.....	4-8.....	214	.089	Do.
335 pounds.....	5-8.....	214	.089	Do.
105 pounds.....	5-8.....	214	.089	Do.
205 pounds.....	6-8.....	214	.089	Do.
90 pounds.....	6-8.....	214	.089	Do.
80 pounds.....	7-8.....	214	.089	Do.
	Oil, neat's-foot:			
132 gallons.....	In 1-gallon cans.....	280	.95	Omaha.
50 gallons.....	In 5-gallon cans.....	286	.85	Do.
1 gross.....	Ornaments, nickel, 1-inch.....	152	1.00	Chicago.
11 gross.....	Pad screws, X. C.....	152	.95	Do.
	Punches:			
1.....	Hand, oval, Nos. 1 to 16.....	152	.40	Do.
28.....	Saddler's, round drive, Nos. 1 to 16.....	152	.35	Do.
59.....	Harness, spring, revolving, 6 tubes.....	152	1.05	Do.
	Rasp, shoe, regular, oval:			
80.....	8-inch.....	158	.255	Do.
12.....	10-inch.....	158	.35	Do.
	Rivets, hame, Norway, malleable:			
60 pounds.....	$\frac{1}{2}$ -inch.....	152	.06	Do.
60 pounds.....	$\frac{1}{2}$ -inch.....	152	.06	Do.
	Rings, halter, with loop:			
3 dozen.....	1-inch, japanned.....	152	.10	Do.
34 dozen.....	1-inch.....	152	.12	Do.
	Rings, harness, X. C.:			
24 dozen.....	$\frac{1}{2}$ -inch.....	152	.025	Do.
112 dozen.....	$\frac{1}{2}$ -inch.....	152	.035	Do.
84 dozen.....	1-inch.....	152	.04	Do.
30 dozen.....	1-inch.....	152	.055	Do.
	Rings, breeching, X. C.:			
88 dozen.....	1-inch.....	152	.08	Do.
159 dozen.....	1-inch.....	152	.09	Do.
	Rosettes, nickel plated:			
14 dozen.....	1-inch.....	152	.12	Do.
143 dozen.....	2-inch.....	150	.25	Do.
46.....	Rules, 3-foot, straight, boxwood.....	152	.40	Do.
15.....	Saddles, riding, with horn.....	152	10.45	Do.
10 dozen.....	Sheepskins, for shoe linings, medium weight, pink and russet.....	120	* 10.00	Chicago, New York or St. Louis.
	Slides, breast strap, japanned:			
114 dozen.....	1-inch.....	150	.20	Chicago.
3 dozen.....	1-inch.....	150	.24	Do.
$\frac{1}{4}$ dozen.....	2-inch.....	152	.65	Do.
	Snaps, harness, X. C.:			
5 gross.....	$\frac{1}{2}$ -inch.....	158	1.80	Do.
10 gross.....	$\frac{1}{2}$ -inch.....	158	1.80	Do.
22 gross.....	1-inch.....	158	1.80	Do.
3 gross.....	1-inch.....	158	3.27	Do.
7 gross.....	1-inch.....	158	3.45	Do.
81 dozen.....	Spots, silvered, $\frac{1}{2}$ -inch.....	158	.10	Do.

* Pink.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

HARNESS, LEATHER, SHOE FINDINGS, SADDLERY, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
41 dozen.....	Squares, bip strap, X. C., $\frac{1}{2}$ -inch.....	152	\$0.05	Chicago.
76 dozen.....	Staples, hame, with burrs, polished.....	194	.12	St. Louis.
17.....	Stands, iron, counter, regular, 4 lasts, 23 inches high.....	214	.42	Do.
14 pairs.....	Stirrups, solid bent wood, width of tread 5 inches.....	152	.15	Chicago.
13.....	Stitching horses, 5-inch jaws.....	152	2.50	Do.
13.....	Stones, sand, per pound.....	158	.03	Do.
16.....	Surcingle, $\frac{3}{4}$ inches wide, 6 feet 9 inches long.....	152	.25	Do.
52 dozen.....	Swivels, gal., X. C., loop, $\frac{1}{2}$ -inch, to buckle.....	152	.17	Do.
	Tacks, shoe:			
60 pounds.....	1-ounce.....	152	.115	Do.
70 pounds.....	2-ounce.....	152	.085	Do.
101 pounds.....	3-ounce.....	152	.07	Do.
	Terrets, band, X. C.:			
3 dozen.....	$\frac{1}{2}$ -inch.....	152	.30	Do.
21 dozen.....	$\frac{1}{2}$ -inch.....	152	.33	Do.
	Thread, Barbour's or equal:			
11 pounds.....	Harness, No. 3, black.....	20	1.05	Do.
65 pounds.....	Shoe, No. 3, white.....	20	.93	Do.
144 pounds.....	Shoe, No. 10.....	20	.85	Do.
	Thread, linen, black, machine:			
8 doz. spools.....	No. 18.....	20	1.68	Do.
16 doz. spools.....	No. 40.....	20	2.55	Do.
11 doz. spools.....	No. 50.....	20	2.77	Do.
13.....	Tools, claw, with riveted handle.....	158	.34	Do.
33 dozen.....	Trace carriers, Reynolds's or equal, X. C., $\frac{1}{2}$ -inch Wax, small ball, per 100 balls, summer and winter temperatures.....	158	.27	Do.
2,500 balls.....	Saddler's, black.....	152	.35	Do.
720 balls.....	Shoemaker's, brown.....	150	.37	Do.
1.....	Wheel, overstretch, stationary, with octagon carriage, No. 8.....	152	.65	Do.
16 doz. pairs.....	Winkers, $\frac{1}{2}$ -inch, sensible, 2 seams, patent leather.....	150	2.75	Do.

AGRICULTURAL IMPLEMENTS, ETC.

25.....	Augers, Vaughan's or equal, post-hole, 9-inch.....	214	\$0.47	St. Louis.
411 dozen.....	Axle grease.....	253	a .33	Chicago.
52 sets.....	Children's garden utensils, large size, hoe, rake, and spade.....	214	.84	St. Louis.
3.....	Corn planters, hand.....	158	.42	Chicago.
1.....	Cornshellers, hand, medium size.....	158	6.00	Do.
1.....	Cradle, grain, 4-finger, with scythes.....	158	2.00	Do.
	Cultivators, John Deere or equal:			
7.....	1-horse, iron frame, 5-inch blade, with wheel.....	41	2.85	Chicago, Kansas City, New York, Omaha, St. Paul, or Sioux City.
6.....	Riding, 2-horse.....	41	19.00	Do.
40.....	Diggers, "Hercules" or equal, post-hole, steel blade, iron handle, or 2 steel blades with 2 wooden handles.....	158	.625	Chicago.
36 dozen.....	Forks, hay, c. s., 4 oval tines, strapped ferrule, 54-foot handles.....	194	4.25	St. Louis.
	Forks, manure, c. s., 5 oval tines, strapped ferrule:			
36 dozen.....	Long handles.....	158	6.25	Chicago.
5 dozen.....	Short D handle.....	194	6.40	St. Louis.
	Handles:			
116 dozen.....	Ax, 36-inch hickory, "extra," XXX.....	194	1.30	Do.
36 dozen.....	Hayfork, without ferrule, 54-foot.....	194	1.00	Do.
70 dozen.....	Pick, 36-inch "extra".....	194	.80	Do.
41 dozen.....	Shovel, long.....	158	2.00	Chicago.
19 dozen.....	Shovel, short, D.....	194	1.85	St. Louis.
15 dozen.....	Spade, D.....	214	1.65	Do.
12 dozen.....	Spade, long.....	214	1.10	Do.
18.....	Harrows, 60 teeth, $\frac{1}{2}$ x 8 inches, steel, with drawbar and clevises.....	136	7.75	Chicago, Kansas City, Omaha, St. Louis, or St. Paul.
	Harrows, disk:			
3.....	2-horse, 14-inch disks.....	136	b 16.00	Do.
2.....	3-horse, 16-inch disks.....	136	c 18.75	Do.
1.....	4-horse.....	34	d 20.60	Do.

a Per dozen.

b 8 x 16 inch disks and weight boxes.

c 12 x 16 inch disks and weight boxes.

d "Ideal," 14 x 16 inch.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

AGRICULTURAL IMPLEMENTS, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
57 dozen.....	Hoes: Garden, solid socket, c. s., 6½-inch, extra quality.	214	\$2.50	St. Louis.
25 dozen.....	Solid forged steel, planter's eye, 7½-inch, No. 1, with handle.	214	3.10	Do.
3½ dozen.....	Grub, c. s., oval eye, No. 2.....	158	2.70	Chicago.
10 dozen.....	Knives: Corn, c. s., three rivets.....	194	1.56	St. Louis.
6.....	Hay.....	214	.35½	Do.
56.....	Lawn mowers, "Rival" or equal, hand, 14-inch, ball-bearing.	158	3.25	Chicago.
15 dozen.....	Mattocks, ax, c. s.....	214	3.14	St. Louis.
123.....	Picks, earth, steel-pointed, assorted, 5 to 6 pounds.	214	.226	Do.
33.....	Plows, 8-inch, c. s., 1-horse, with extra share.....	136	4.75	Chicago, Kansas City, Omaha, St. Louis, or St. Paul.
42.....	Plows, c. s., 2-horse, with extra share: 10-inch.....	136	7.15	Do.
26.....	12-inch.....	136	8.05	Do.
11.....	14-inch.....	136	8.85	Do.
9.....	Plows, "breaker," 12-inch, with rolling or standing coulters (as may be required), gauge wheel, and extra share.	136	11.25	Do.
1.....	Plow, shovel: Double.....	41	2.00	Chicago, Kansas City, New York, Omaha, St. Paul, or Sioux City.
8.....	Single.....	34	1.55	Chicago, Kansas City, Omaha, St. Louis, or St. Paul.
14.....	Rakes, hay, sulky: 8-foot.....	300	a 18.00	Chicago, New York, or St. Louis.
30.....	10-foot.....	300	b 20.00	Do.
3½ dozen.....	Rakes, hay, wood, 12 teeth, 2 bows.....	214	1.65	St. Louis.
44 dozen.....	Rakes, "Keystone" or equal, wrought steel, handled, 12 teeth.	214	2.20	Do.
72.....	Scoops, grain, medium quality, No. 4.....	214	.42	Do.
59.....	Scrapers, road, 2-horse.....	158	2.85	Chicago.
177.....	Shovels, coal: D handle.....	158	.30	Do.
517.....	Long-handled, No. 2, round, stiff point, not less than 55 pounds per dozen.	158	.36	Do.
100.....	D handle, No. 2, square point.....	158	.36	Do.
42.....	Sickles, No. 3, grain.....	158	.12	Do.
3½ dozen.....	Scythes, Hunt's or equal: Brush, 21 to 24 inch.....	158	6.35	Do.
5½ dozen.....	Grass, assorted, 34 to 38 inch.....	194	6.30	St. Louis.
5½ dozen.....	Weed, 28 to 30 inch.....	158	6.35	Chicago.
12 dozen.....	Scythe anathas, patent ring.....	214	3.90	St. Louis.
23 dozen.....	Scythestones.....	158	.32	Chicago.
103.....	Spades, steel, No. 2, not less than 55 pounds per dozen: Long-handled.....	194	.375	St. Louis.
146.....	D handle.....	158	.35	Chicago.
10,570 pounds	Twine, binder, long fiber (sisal), subject to actual tare.	201	{ .0725 .075	Do. Omaha.
75.....	Wheelbarrows: All iron, tubular.....	158	2.50	Chicago.
15.....	Garden, wood, No. 2.....	158	2.15	Do.

WAGONS AND WAGON FIXTURES.

12.....	Axletrees, hickory, wagon, narrow track: 2½ x 3½.....	139	\$0.60	Chicago or St. Louis.
31.....	2½ x 3½.....	139	.65	Do.
16.....	2½ x 3½.....	139	.70	Do.
57.....	3 x 4.....	139	.80	Do.
33.....	3½ x 4½.....	139	.90	Do.
24.....	3½ x 4½.....	139	1.00	Do.
9.....	4 x 5.....	139	1.30	Do.

a 24 teeth.

b 30 teeth.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

WAGONS AND WAGON FIXTURES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Axletrees, hickory, wagon, wide track:			
32.....	2½ x 3½.....	130	\$0.70	Chicago or St. Louis.
130.....	3 x 4.....	130	.80	Do.
46.....	3½ x 4½.....	139	.90	Do.
12.....	3½ x 4½.....	139	1.00	Do.
18.....	4 x 5.....	139	1.30	Do.
12.....	4½ x 5½.....	139	1.75	Do.
	Bolsters, sand, white oak, wagon, front, narrow track:			
6.....	2½ x 3½.....	139	.30	Do.
9.....	2½ x 4½.....	139	.45	Do.
50.....	3 x 4½.....	139	.50	Do.
37.....	3½ x 5.....	139	.55	Do.
	Bolsters, sand, white oak, wagon, front, wide track:			
58.....	2½ x 4½.....	139	.50	Do.
134.....	3 x 4½.....	139	.60	Do.
46.....	3½ x 5.....	139	.70	Do.
	Bolsters, rocker, oak, wagon, front, narrow track:			
16.....	2½ x 3½.....	139	.30	Do.
44.....	2½ x 4½.....	139	.45	Do.
40.....	3 x 4½.....	139	.50	Do.
25.....	3½ x 5.....	139	.55	Do.
	Bolsters, rocker, oak, wagon, front, wide track:			
6.....	2½ x 3½.....	139	.35	Do.
40.....	2½ x 4½.....	139	.45	Do.
117.....	3 x 4½.....	139	.60	Do.
24.....	3½ x 5.....	139	.70	Do.
	Bolsters, oak, wagon, rear, narrow track:			
8.....	2½ x 3.....	139	.25	Do.
42.....	2½ x 3½.....	139	.35	Do.
54.....	3 x 4.....	139	.50	Do.
6.....	3½ x 4½.....	139	.65	Do.
	Bolsters, oak, wagon, rear, wide track:			
16.....	2½ x 3½.....	139	.45	Do.
131.....	3 x 4.....	139	.58	Do.
	Bolsters, oak, wagon, rear, wide track:			
37.....	3½ x 4½.....	139	.75	Do.
169 sets.....	Bows, white oak, farm wagon, round top, ½ x 1½ inches, per set of 5.	144	.94	Chicago.
	Clevises, wrought-iron, per pound:			
640.....	2 x 4½ inches, with self-fastening pin.....	194	.04	St. Louis.
575.....	2 x 5½ inches, with key pin.....	158	.045	Chicago.
50 dozen.....	Clips, center, ½-inch ring.....	194	.65	St. Louis.
218.....	Covers, wagon, 13 feet 9 inches long, 10 feet wide, full size, with draw rope each end, and three tie ropes (36 inches long) each side.	54	4.24	Chicago.
	Eveners, hickory, wagon, full ironed, ends riveted, top and bottom plate at center, ½-inch hole; stay chains and eyebolts:			
225.....	Narrow track, 1½ x 4 inches by 4 feet.....	129	{ a .95 b 1.20	Chicago or St. Louis.
321.....	Wide track, 2½ x 4½ inches by 54 inches.....	129	{ a 1.80 b 2.10	Do.
420.....	Hooks and ferrules, singletree, 1½-inch.	158	.045	Chicago.
	Reaches, white oak, butt cut, tough, sliding, not tapered:			
182.....	For 2½-inch wagon, 9 feet 6 inches long by 3½ x 1½.....	139	.50	Chicago or St. Louis.
384.....	For 3-inch wagon, 9 feet 6 inches long by 3½ x 1½.....	139	.50	Do.
300.....	For 3½-inch wagon, 9 feet 6 inches long by 3½ x 1½.....	139	.50	Do.
177.....	For 3½-inch wagon, 9 feet 6 inches long by 3½ x 1½.....	139	.50	Do.
	Spokes, wagon, "B select."			
2 sets.....	1½-inch.....	144	2.14	Chicago
5 sets.....	1½-inch.....	144	2.34	Do.
32 sets.....	2-inch.....	140	2.00	St. Louis.
105 sets.....	2½-inch.....	140	2.10	Do.
21 sets.....	2½-inch.....	140	2.35	Do.

a Without stay chains.

b With stay chains.

c Per set of 52 spokes.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

WAGONS AND WAGON FIXTURES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
324.....	Wagons, wide and narrow track, complete, with hickory axletrees, bent front hounds, ironed on both sides below the reach, and also on the underside of the top sliding bar with $\frac{1}{2}$ x $\frac{1}{2}$ inch iron on the $2\frac{1}{2}$ x 8 inch wagons, and increase according to size of wagons. Reaches to be ironed on both sides opposite their respective irons; eveners, lower box, neck yoke, singletree, stay chains, tongue, and flat iron bar under the whole length of axles, viz: California, equipped with gear brake, clipped gear, and hooded steel skains—			
	$2\frac{1}{2}$ x 8 inches, tires $1\frac{1}{2}$ x $\frac{1}{4}$ inch.....	144	\$42.48 42.38 44.07 44.56 53.01 44.94 44.82 46.74 47.28	Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City. San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	$2\frac{1}{2}$ x 8 inches, tires 3 x $\frac{1}{2}$ inch.....	144	56.68 44.85 44.73 46.66 47.20	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	3 x 9 inches, tires $1\frac{1}{2}$ x $\frac{1}{2}$ inch.....	144	56.64 49.75 49.62 51.70 52.27	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	3 x 9 inches, tires 3 x $\frac{1}{2}$ inch.....	144	63.80 49.04 48.91 50.99 51.56	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	$2\frac{1}{2}$ x 10 inches, tires $1\frac{1}{2}$ x $\frac{1}{2}$ inch.....	144	61.73 52.68 52.54 54.80 55.40	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	$2\frac{1}{2}$ x 10 inches, tires 3 x $\frac{1}{2}$ inch.....	144	67.72 59.41 59.27 61.53 62.13	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	3 x 11 inches, tires 2 x $\frac{1}{2}$ inch.....	144	75.22 68.53 68.41 71.17 71.88	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	3 x 11 inches, tires 4 x $\frac{1}{2}$ inch.....	144	86.42	San Francisco.
	Ordinary, equipped with hooded steel skain and box brake—			
	$2\frac{1}{2}$ x 8 inches, tires $1\frac{1}{2}$ x $\frac{1}{4}$ inch.....	144	39.53 39.43 41.18 41.67 50.07 41.84 41.72 43.62 44.15	Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City. San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	$2\frac{1}{2}$ x 8 inches, tires 3 x $\frac{1}{2}$ inch.....	144	53.59	San Francisco.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

WAGONS AND WAGON FIXTURES—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Wagons, etc.—Continued.			
	3 x 9 inches, tires 1½ x ½ inch.....	144	\$41.74 41.64 43.25 43.74	Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	3 x 9 inches, tires 3 x ½ inch.....	144	52.89 45.49 45.36 47.41 47.97	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	3½ x 10 inches, tires 1½ x ½ inch.....	144	53.70 44.49 44.36 46.37 46.93	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	3½ x 10 inches, tires 3 x ½ inch.....	144	57.85 48.99 48.85 51.09 51.69	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	3½ x 11 inches, tires 1½ x ½ inch.....	144	62.75 50.50 50.36 52.60 53.20	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	3½ x 11 inches, tires 4 x ½ inch.....	144	64.70 61.50 61.34 64.05 64.75	San Francisco. Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
	Separate prices were invited for—		78.02	San Francisco.
67.....	Bows, white oak.....	144	9.94 .94 .97 .98	Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
67.....	Covers (according to specification, wagon covers).	54	1.12 4.24	San Francisco. Chicago.
183.....	Spring seats.....	144	1.69 1.69 1.76 1.78	Do. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City.
			2.17 3.02 3.01 3.69 3.12 3.83	Chicago. Do. St. Louis. Do. St. Paul. Do.
181.....	Top boxes.....	144	3.15 3.86 3.71 4.57	Omaha, Kansas City, or Sioux City. San Francisco. Do.
1,014.....	Whiffletrees, hickory, wagon, oval, 2½-inch center, 34 inches long, full ironed, with wrought strap irons and hooks at ends and clamp iron with rings at center.	158	.28½	Chicago.
284.....	Yokes, neck, hickory, wagon, 2½-inch center, 38 inches long, full iron.	158	.33½	Do.

a Set of five.

b 8-inch.

c 10-inch.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

GLASS, OILS, AND PAINTS.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
925 pounds...	Borax, powdered.....	177	\$0.04375	St. Louis.
100.....	Brushes:			
14 dozen.....	Calimine, all bristles, 7-inch, medium-long stock.	158	.75	Chicago.
48.....	Marking, bristle, assorted, 1 to 4.....	130	.19	Do.
44.....	Paint, round, all white bristles, slightly open center—			
46.....	No. 1.....	165	.39	New York.
37.....	No. 2.....	165	.58	Do.
	No. 3.....	165	.93	Do.
	No. 4.....	63	1.38	Chicago.
332.....	Paint, all black Chinese bristles, flat, long stock—			
479.....	3 inches wide.....	65	.16	New York.
216.....	4 inches wide.....	84	.26	St. Louis.
21.....	All bristles, oval, chiseled (sash tool), No. 6.....	158	.07	Chicago.
152.....	Slatting.....	130	.80	Do.
	Varnish, all Chinese bristles, 3 inches wide, triple thick.	165	.31	New York.
140.....	Whitewash, all bristles, 8 inches wide, medium-long stock, with handle.	165	.41	Do.
180 gallons...	Coal tar, in 5-gallon tin cans.....	12	.21	Omaha.
22 boxes.....	Glass, window, single thick:			
7 boxes.....	8 x 10.....	130	1.98	Chicago.
9 boxes.....	9 x 12.....	130	1.98	Do.
2 boxes.....	9 x 14.....	130	1.98	Do.
2 boxes.....	9 x 15.....	130	1.98	Do.
1 box.....	9 x 16.....	130	1.98	Do.
57 boxes.....	9 x 18.....	130	2.08	Do.
28 boxes.....	10 x 12.....	130	1.98	Do.
13 boxes.....	10 x 14.....	130	1.98	Do.
25 boxes.....	10 x 16.....	130	2.08	Do.
6 boxes.....	10 x 18.....	130	2.08	Do.
5 boxes.....	10 x 20.....	130	2.08	Do.
6 boxes.....	10 x 22.....	130	2.08	Do.
7 boxes.....	10 x 24.....	130	2.08	Do.
27 boxes.....	10 x 28.....	130	2.22	Do.
56 boxes.....	12 x 14.....	130	2.08	Do.
21 boxes.....	12 x 16.....	130	2.08	Do.
17 boxes.....	12 x 18.....	130	2.08	Do.
8 boxes.....	12 x 20.....	130	2.08	Do.
16 boxes.....	12 x 22.....	130	2.08	Do.
8 boxes.....	12 x 24.....	130	2.22	Do.
23 boxes.....	12 x 26.....	130	2.22	Do.
18 boxes.....	12 x 28.....	130	2.22	Do.
30 boxes.....	12 x 30.....	84	2.41	St. Louis.
14 boxes.....	12 x 32.....	94	2.41	Do.
28 boxes.....	12 x 34.....	84	2.41	Do.
5 boxes.....	12 x 36.....	84	2.41	Do.
1 box.....	12 x 38.....	84	2.41	Do.
23 boxes.....	14 x 14.....	130	2.08	Chicago.
22 boxes.....	14 x 16.....	130	2.08	Do.
8 boxes.....	14 x 18.....	130	2.08	Do.
5 boxes.....	14 x 20.....	130	2.08	Do.
14 boxes.....	14 x 22.....	130	2.22	Do.
15 boxes.....	14 x 26.....	130	2.22	Do.
18 boxes.....	14 x 28.....	84	2.41	St. Louis.
35 boxes.....	14 x 30.....	84	2.41	Do.
21 boxes.....	14 x 32.....	84	2.41	Do.
31 boxes.....	14 x 34.....	84	2.41	Do.
13 boxes.....	14 x 36.....	84	2.41	Do.
6 boxes.....	14 x 38.....	84	2.49	Do.
6 boxes.....	14 x 42.....	84	2.62	Do.
10 boxes.....	14 x 48.....	130	2.85	Chicago.
11 boxes.....	15 x 18.....	130	2.08	Do.
4 boxes.....	15 x 20.....	130	2.22	Do.
6 boxes.....	15 x 24.....	130	2.22	Do.
5 boxes.....	15 x 26.....	84	2.41	St. Louis.
16 boxes.....	15 x 28.....	84	2.41	Do.
17 boxes.....	15 x 32.....	84	2.41	Do.
37 boxes.....	15 x 34.....	84	2.41	Do.
20 boxes.....	15 x 36.....	84	2.49	Do.
11 boxes.....	15 x 40.....	84	2.62	Do.
1 box.....	16 x 18.....	130	2.08	Chicago.
1 box.....	16 x 20.....	130	2.22	Do.
10 boxes.....	16 x 22.....	130	2.22	Do.
	16 x 24.....	130	2.22	Do.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

GLASS, OILS, AND PAINTS—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Glass, window, double thick:			
33 boxes.....	16 x 36.....	84	\$3.86	St. Louis.
2 boxes.....	16 x 44.....	84	3.95	Do.
2 boxes.....	18 x 18.....	84	3.46	Do.
3 boxes.....	18 x 20.....	84	3.46	Do.
6 boxes.....	18 x 24.....	84	3.76	Do.
2 boxes.....	18 x 30.....	84	3.76	Do.
9 boxes.....	18 x 36.....	84	3.86	Do.
2 boxes.....	18 x 42.....	84	3.95	Do.
5 boxes.....	20 x 24.....	84	3.76	Do.
6 boxes.....	20 x 26.....	84	3.76	Do.
7 boxes.....	20 x 48.....	84	4.26	Do.
1 box.....	22 x 26.....	84	3.76	Do.
7 boxes.....	24 x 28.....	84	3.86	Do.
17 boxes.....	24 x 32.....	84	3.95	Do.
3 boxes.....	24 x 34.....	84	3.95	Do.
15 boxes.....	24 x 36.....	84	3.95	Do.
6 boxes.....	26 x 34.....	84	4.26	Do.
10 boxes.....	26 x 38.....	84	4.26	Do.
6 boxes.....	28 x 30.....	84	3.95	Do.
4 boxes.....	28 x 34.....	84	4.26	Do.
30 boxes.....	30 x 40.....	84	4.26	Do.
54.....	Glazier's sure-cut style diamond glass cutters.....	126	2.20	New York.
337 papers.....	Glazier's points, 1-pound papers.....	130	.05	Chicago.
	Glue:			
475 pounds.....	Cabinetmaker's, sheet.....	84	.12	St. Louis.
243 quarts.....	Liquid, prepared, in cans.....	130	.51	Chicago.
366 gallons.....	Hard oil, light, in 1 and 5 gallon cans.....	287	a. 70 b. 65	Do.
215 gallons.....	Japan, house painter's, in 1-gallon cans.....	287	.45	Do.
	Lampblack:			
104 pounds.....	In 1-pound papers.....	158	.04	Do.
425 pounds.....	Pure, in oil, good strength, in 1, 2, and 5 pound cans.....	63	.125	Do.
	Lead, in kegs, not over 100 pounds net weight:			
1,050 pounds.....	Red, strictly pure, dry.....	130	.0675	Do.
70,900 pounds.....	White, in oil, guaranteed strictly pure.....	245	5.875	St. Louis.
865 pounds.....	Oakum.....	286	.065	Omaha.
	Oil, in 5-gallon cans, cased, or in 5-gallon flat-top jacketed cans:			
2,100 gallons.....	Cylinder.....	141	c. 161	Chicago.
2,250 gallons.....	Engine.....	4	.1425	Do.
610 gallons.....	Oil, lard, pure, in 5-gallon cans.....	283	.78	St. Louis.
	Oil, linseed, strictly pure, in 5-gallon cans, cased, or in 5-gallon flat-top jacketed cans:			
5,480 gallons.....	Boiled.....	63	c. 83	Chicago.
1,355 gallons.....	Raw.....	63	.82	Do.
1,030 gallons.....	Oil, lubricating, mineral, crude, in 5-gallon cans, cased, or in 5-gallon flat-top jacketed cans.....	4	.11375	Do.
1,610 bottles.....	Oil, sewing machine, in full 2-ounce bottles.....	158	.02½	Do.
	PAINTS, ETC.			
	Chrome green, medium:			
145 pounds.....	Dry.....	63	.0375	Do.
1,060 pounds.....	In oil, for tinting, in 1, 2, and 5 pound cans.....	63	.105	Do.
	Chrome yellow, medium:			
124 pounds.....	Dry.....	63	.0425	Do.
655 pounds.....	In oil, for tinting, in 1, 2, and 5 pound cans.....	130	.11875	Do.
230 pounds.....	English vermilion, light, in oil, for tinting, in 1-pound cans.....	63	.44	Do.
400 pounds.....	Ivory, drop black, in oil, for tinting, in 1, 2, and 5 pound cans.....	130	.0975	Do.
450 pounds.....	Indian red, in japan, in 1, 2, and 5 pound cans.....	63	.13	Do.
	Ocher, French, yellow:			
575 pounds.....	Dry.....	130	.01875	Do.
530 pounds.....	In oil, for tinting, in 1, 2, and 5 pound cans.....	63	.0725	Do.
332 pounds.....	Prussian blue, in oil, for tinting, in 1, 2, and 5 pound cans.....	63	.21	Do.
5,480 gallons.....	Roof, red oxide, mineral, in 5-gallon flat-top jacketed cans.....	158	.38	Do.

a In 1-gallon cans.

b In 5-gallon cans.

c In 5-gallon flat-top, wood jacket.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

GLASS, OILS, AND PAINTS—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	PAINTS, ETC.—continued.			
	Sienna, in oil, for tinting, in 1, 2, and 5 pound cans:			
220 pounds...	Burnt.....	63	\$0.0975	Chicago.
130 pounds...	Raw.....	63	.096	Do.
285 pounds...	Venetian red, in oil, for tinting, in 1, 2, and 5 pound cans.	63	.06	Do.
	Paper:			
11,060 pounds	Building.....	158	.0145	Do.
13,350 pounds	Tarred.....	44	.0185	Omaha.
	Putty:			
3,410 pounds.	In 5-pound cans.....	130	.035	Chicago.
1,740 pounds.	In 10-pound cans.....	130	.0325	Do.
400 pounds...	In 25-pound cans.....	130	.03	Do.
164 pounds...	Resin, common.....	130	.03	Do.
116 gallons...	Stain, oak, oil, in 1-gallon cans.....	130	.55	Do.
	Turpentine:			
930 gallons...	In 1-gallon cans.....	253	.72	Do.
1,280 gallons...	In 5-gallon cans.....	253	6.68	Do.
380 pounds...	Umber, burnt, in oil, for tinting, in 1, 2, and 5 pound cans.	63	.0975	Do.
	Varnish:			
135 gallons...	Coch, good quality, for interior use.....	287	.75	Do.
106 gallons...	Wagon, heavy, durable body, in 1-gallon cans, cased.....	287	1.10	Do.
10 gallons...	5-gallon cans.....	287	1.05	Do.
2,470 pounds.	Whiting, extra, gilder's bolted.....	160	.0078	St. Louis.

TIN* AND STAMPED WARE.

688.....	Boilers, wash, XX tin, flat copper bottom, size 21 x 11 x 13 inches, iron drop handles, riveted, No. 8, heavy.	243	\$0.732	New York.
1,390.....	Buckets, water, galvanized iron, heavy, full size, 14-quart.	243	.175	Do.
6 dozen.....	Candlesticks, planished tin or japanned, 6-inch.	214	.245	St. Louis.
21 dozen.....	Cans:			
	Kerosene, galvanized, corrugated sides, 1-gallon, common top.	214	1.40	Do.
44.....	Milk, all steel, 32-quart, ironclad, retinned.	158	1.50	Chicago.
	Coffee-pots, full size, IX, tin, solid spout, riveted bail and handle:			
38.....	2-quart.....	194	.20	St. Louis.
53.....	4-quart.....	194	.28	Do.
36.....	Coffee boilers, 4-quart, full size, IX tin, solid spout, riveted bail and handle.	194	.35	Do.
167.....	Coffee-pots, 4-quart, gray enameled ware.....	158	.605	Chicago.
80.....	Coffee boilers, 6-quart, gray enameled ware.....	281	6.38	New York.
	Coffee mills:			
5.....	Iron or block tin hopper box.....	158	.32	Chicago.
29.....	"Arcade No. 5," or equal, side, medium.....	158	.22	Do.
2.....	"Enterprise," or equal, with wheel, capacity of hopper 6 pounds.	158	16.00	Do.
39.....	Colanders, seamless, steel, 16½ x 5½ inches.....	281	6.67	New York.
	Cups, full size, XX stamped tin, retinned, riveted handle:			
23 dozen.....	Pint.....	158	.97	Chicago.
4½ dozen.....	Quart.....	158	.97	Do.
42 dozen.....	Dippers, water, 1-quart, XX tin, full size, long handles, riveted, extra quality.	214	2.16	St. Louis.
283.....	Flour sifters.....	158	.085	Chicago.
	Kettles, with covers, wrought-steel hollow ware, retinned:			
74.....	8-quart.....	214	.75	St. Louis.
40.....	12-quart.....	214	.95	Do.
	Measures, tin, XX, with full rim:			
25.....	Pint.....	21	.12	New York.
39.....	Quart.....	21	.17	Do.
	Pails, water, heavy tin, retinned:			
635.....	10-quart.....	158	.17	Chicago.
531.....	14-quart.....	158	.21	Do.
	Pans, bake, sheet steel, No. 27:			
126.....	12 x 19 x 4 inches.....	214	.345	St. Louis.
141.....	15 x 20 x 4 inches, with two ¼-inch oval runners.	214	.41	Do.

* In 2 and 5 gallon cans.

* Only.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

TIN AND STAMPED WARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Pans, dish, full size, XX stamped tin, retinned, extra quality:			
357.....	14-quart.....	21	\$0.32	New York.
572.....	17-quart.....	21	.37	Do.
102 dozen.....	Pans, dust, japanned, heavy.....	158	.63	Chicago.
115.....	Pans, fry, "Acme" or equal, No. 4, wrought steel, polished, 8 inches across bottom.	158	.065	Do.
	Pans, tin, full size, XX stamped tin, retinned, extra quality:			
6½ dozen.....	1-quart.....	21	.72	New York.
12½ dozen.....	2-quart.....	21	.96	Do.
31 dozen.....	4-quart.....	21	1.44	Do.
40 dozen.....	6-quart.....	21	2.04	Do.
28 dozen.....	8-quart.....	21	2.40	Do.
	Plates, XX stamped tin, 9-inch:			
18 dozen.....	Baking, deep, jelly.....	158	.24	Chicago.
68 dozen.....	Pie.....	158	.21	Do.
	Scoops, grocer's, hand, XX stamped tin, retinned:			
66.....	No. 20.....	243	.107	New York.
61.....	No. 40.....	243	.158	Do.
	Shears, tinner's, hand, "Wilcox's" or equal:			
17.....	No. 7.....	158	1.00	Chicago.
9.....	No. 9.....	158	.60	Do.
1,060 pounds.....	Solder, half and half.....	194	.185	St. Louis.
	Soldering irons, per pound:			
7 pairs.....	1½ pounds each.....	158	.20	Chicago.
4 pairs.....	2 pounds each.....	158	.20	Do.
28 dozen.....	Spoons, basting, forged steel, retinned.....	158	.48	Do.
	Strainers, XX tin:			
153.....	Milk, 12-inch.....	214	.315	St. Louis.
34.....	Soup, large size.....	21	.25	New York.
64.....	Teapots, 4-quart, gray enameled ware.....	158	.625	Chicago.
	Tin, sheet, 10, charcoal, bright:			
3 boxes.....	10 x 14 inches.....	158	5.25	Do.
9 boxes.....	14 x 20 inches.....	158	5.25	Do.
	Tin, sheet, 1X, charcoal, bright:			
5 boxes.....	10 x 14 inches.....	158	6.35	Do.
11 boxes.....	20 x 28 inches.....	158	12.70	Do.
8 boxes.....	14 x 20 inches.....	158	6.35	Do.
29 dozen.....	Wash basins, stamped tin, flat bottom, retinned, 11 inches.....	214	.98	St. Louis.
	Wash tubs, galvanized-iron, inside measure, with corrugated bottom and heavy drop handles:			
146.....	19½ inches in diameter by 10½ inches deep.....	243	.31	New York.
248.....	21½ inches in diameter by 10½ inches deep.....	243	.353	Do.
278.....	23½ inches in diameter by 10½ inches deep.....	243	.411	Do.
9,185 pounds.....	Zinc, sheet, 36 x 84 inches, No. 9.....	158	.0765	Chicago.

STOVES, PIPE, HOLLOW WARE, ETC.

	Coal hods, heavy, galvanized, riveted bottoms or pressed in:			
350.....	16-inch.....	243	\$0.177	New York.
275.....	18-inch.....	243	.206	Do.
	Dampers, stovepipe, H. S. B. & Co. or equal:			
337.....	6-inch.....	158	.04	Chicago.
20.....	7-inch.....	158	.0625	Do.
	Elbows, stovepipe, adjustable, corrugated, No. 26 iron, packed in cases:			
946.....	Size 6-inch.....	194	.12	St. Louis.
94.....	Size 7-inch.....	194	.17	Do.
	Furnaces for 48-gallon and 75-gallon portable caldrons, full jacket.....	158	{a13.50 b16.50	{Chicago. Do.
3.....	Ovens, Dutch, cast-iron, deep pattern, 15 inches diameter inside.....	158	.95	Do.
	Pipe, stove, patent, No. 26 iron; polished, edges curved, crimped, and formed; nested in bundles:			
4,292 joints.....	6-inch.....	158	.0875	Do.
495 joints.....	7-inch.....	194	.1275	St. Louis.
167 dozen.....	Polish, stove.....	194	.36	Do.

a 48-gallon.

b 75-gallon.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

STOVES, PIPE, HOLLOW WARE, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
10.....	Stoves, box, heating, wood: 24 inches long, to weigh not less than 110 pounds.	158	\$3.70	Chicago.
12.....	27 inches long, to weigh not less than 130 pounds.	47	4.30	Chicago or St. Louis.
1.....	32 inches long, to weigh not less than 145 pounds.	47	5.10	Do.
5.....	37 inches long, to weigh not less than 190 pounds.	47	6.50	Do.
7.....	Stoves, steel box, heating, wood, not lighter than 22-gauge steel, with cast lining; 22 inches long.	158	3.24	Chicago.
3.....	25 inches long	158	3.85	Do.
30.....	Stoves, sheet steel, heating, coal, cast lining, with hot-blast tube: 15-inch body	47	7.45	Chicago or St. Louis.
38.....	17-inch body	69	8.98	Chicago.
1.....	Stoves, cooking, coal: 7-inch, oven not less than 16 x 16 x 10 inches; to weigh not less than 200 pounds.	47	9.00	Chicago or St. Louis.
26.....	8-inch, ovens not less than 18 x 18 x 11 inches; to weigh not less than 240 pounds.	47	10.00	Do.
58.....	9-inch, ovens not less than 19 x 19 x 12 inches; to weigh not less than 280 pounds.	47	11.15	Do.
1.....	Stoves, cooking, wood: 7-inch, length of wood 20 inches; ovens not less than 14 x 18 x 12 inches; to weigh not less than 225 pounds.	47	9.78	Do.
8.....	8-inch, length of wood 22 inches; ovens not less than 19 x 20 x 13 inches; to weigh not less than 270 pounds.	47	11.17	Do.
15.....	9-inch, length of wood 22 inches; ovens not less than 21 x 22 x 14 inches; to weigh not less than 310 pounds.	67	\$ 12.70	St. Louis.
28.....	Stoves, heating, small, air-tight	158	.74	Chicago.
18.....	Stoves, heating, coal: 14-inch cylinder; to weigh not less than 135 pounds.	67	\$ 6.15	St. Louis.
37.....	16-inch cylinder; to weigh not less than 175 pounds.	67	\$ 7.15	Do.
6.....	Stoves, heating, wood, sheet iron, 32-inch, with outside rods.	47	9.80	Chicago or St. Louis.
23.....	Stoves, heating, coal, large size, 22-inch cylinder; to weigh not less than 375 pounds.	47	17.00	Do.
8.....	Stoves, heating, combined coal and wood, 22 inches diameter, 24-inch heavy steel drum; to weigh not less than 285 pounds.	47	15.50	Do.
10.....	Stoves, coal, laundry: For heating 28 irons	271	13.50	Chicago.
8.....	For heating 33 irons	271	16.50	Do.
25.....	Stoves, heating, hard coal, mounted, base burner: Fire pot about 12 x 14 inches	67	\$ 16.75	St. Louis.
23.....	Fire pot about 15 x 17 inches	67	\$ 20.00	Do.

SCHOOL BOOKS, ETC.

1,900.....	Arithmetics: Milne's Progressive Arithmetic (first book)	6	\$0.28	Chicago or New York.
1,653.....	Milne's Progressive Arithmetic (second book)	6	.32	Do.
876.....	Milne's Progressive Arithmetic (third book)	6	.36	Do.
209.....	Milne's Mental Arithmetic	146	.275	New York.
2.....	Charts: Appleton's Reading Charts	6	6.25	Chicago or New York.
2.....	Butler's Reading Charts	6	4.15	Do.
5.....	Wooster's Industrial Reading Charts	76	6.25	Do.
4,000 packages	Drawing: Drawing paper, 8 by 11, 100 sheets in pack	76	.08	Do.
	THE FRANK ELEMENTARY COURSE IN ART INSTRUCTION— Drawing books— Third year	170	1.46	Do.
100 dozen	Fourth year	170	1.46	Do.
70 dozen	Fifth year	170	1.46	Do.
48 dozen	Sixth year	170	1.06	Do.
19 dozen	Seventh year	170	1.06	Do.
9 dozen	Eighth year	170	1.06	Do.
9 dozen				

* Not crated.

* Crated.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

SCHOOL BOOKS, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Drawings—Continued. THE PRANG ELEMENTARY COURSE IN ART INTRODUCTION—continued. Manual for teachers—			
13.....	First year.....	105	¢\$0.225	Chicago, New York, Omaha, St. Louis, or San Francisco.
11.....	Second year.....	105	¢.225	Do.
6.....	Third year.....	105	¢.225	Do.
2.....	Fourth year.....	105	¢.225	Do.
2.....	Fifth year.....	105	¢.225	Do.
1,825.....	Prang's set color box, No. 1.....	53	.118	New York.
	Geographies:			
353.....	Barnes's Elementary.....	6	.44	Chicago or New York.
195.....	Frye's Primary.....	105	.51	Chicago, New York, Omaha, St. Louis, or San Francisco.
	Redway & Hinman's Natural Geography—			
680.....	Introductory.....	6	.48	Chicago or New York.
361.....	School.....	6	1.90	Do.
	Tarbell's Geography—			
314.....	Introductory.....	6	.40	Do.
200.....	Complete.....	6	.80	Do.
	History, United States:			
153.....	Mowry's First Steps in the History of the United States.....	146	.50	New York.
	Barnes's History of the United States—			
248.....	Elementary.....	6	.48	Chicago or New York.
212.....	School.....	6	.80	Do.
54.....	Brief History of South Dakota.....	6	.48	Do.
18.....	Burton's Story of Our Country.....	6	.48	Do.
	McMaster's History of United States—			
250.....	Primary.....	6	.48	Do.
118.....	School.....	6	.80	Do.
296.....	Montgomery's Beginners' American History.....	105	.51	Chicago, New York, Omaha, St. Louis, or San Francisco.
	Language and Grammar:			
	McLean, Blaisdell & Morrow's Steps in Eng- lish—			
293.....	Part I.....	6	.32	Chicago or New York.
206.....	Part II.....	146	.4775	New York.
	De Garmo's Language Lessons—			
95.....	Book 1.....	3	.18	Chicago.
66.....	Book 2.....	3	.20	Do.
392.....	Bartlett's First Steps in English.....	170	¢.314	Chicago or New York.
349.....	Metcalf's Elementary English.....	146	.3175	New York.
167.....	Metcalf's English Grammar.....	146	.475	Do.
212.....	Reed & Kellogg's Graded Lessons in English.....	170	.335	Chicago or New York.
101.....	Bartlett's Essentials of Language and Gram- mar.....	146	.40	New York.
	Orthography:			
428.....	Black's Graded Speller.....	146	.165	Do.
422.....	Baldwin's Speller.....	6	.16	Chicago or New York.
195.....	Patterson's American Word Book.....	146	.19	New York.
185.....	Saver's Progressive Speller.....	146	¢.18	Do.
	Meleney & Griffin's Selected Words for Spelling, Dictation, etc.—			
153.....	Part I.....	3	.14	Chicago.
23.....	Part II.....	3	.16	Do.
	Primers:			
537.....	Fox's Indian Primer.....	6	.20	Chicago or New York.
741.....	Baldwin's Primer.....	6	.24	Do.
1,683.....	Arnold's Primer.....	146	.25	New York.
1,621.....	Wooster's Primer.....	170	¢.21	Chicago or New York.
1,050.....	Black's Graded Primer.....	170	¢.2025	Do.
670.....	Gibbs's Natural Number Primer.....	6	.20	Do.
388.....	Wooster's Sentence Builders.....	3	.04	Chicago.
370.....	Wooster's Number Builders.....	3	.04	Do.
	Readers:			
	Baldwin's School Reading by Grades—			
1,160.....	First year.....	6	.20	Chicago or New York.
1,036.....	Second year.....	6	.28	Do.
868.....	Third year.....	6	.32	Do.
244.....	Fourth and fifth years, combined.....	6	.48	Do.

¢ Only.

¢ Cloth.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

SCHOOL BOOKS, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Readers, supplemental:			
	Taylor's Readers—			
994.....	First.....	6	\$0.20	Chicago or New York.
884.....	Second.....	6	.28	Do.
	Black's Graded Readers—			
478.....	First.....	170	¢.2425	Do.
404.....	Second.....	170	¢.2425	Do.
472.....	Third.....	170	¢.3225	Do.
	Brooks's Readers—			
805.....	First.....	6	.20	Do.
676.....	Second.....	6	.28	Do.
804.....	Third.....	6	.32	Do.
521.....	Fourth and Fifth.....	6	.40	Do.
319.....	Sixth, Seventh, and Eighth.....	6	.48	Do.
	Stepping Stones to Literature—			
589.....	A First Reader.....	146	.25	New York.
559.....	A Second Reader.....	146	.33	Do.
558.....	A Third Reader.....	170	¢.42	Chicago or New York.
300.....	A Fourth Reader.....	170	¢.51	Do.
180.....	A Fifth Reader.....	170	¢.51	Do.
153.....	A Sixth Reader.....	146	.495	New York.
84.....	A Seventh Reader.....	146	.495	Do.
76.....	A Reader for Higher Grades.....	146	.495	Do.
	Graded Classics—			
457.....	First Reader.....	170	¢.2325	Chicago or New York.
375.....	Second Reader.....	170	¢.2725	Do.
216.....	Third Reader.....	170	¢.3125	Do.
	Second to third grades—			
100.....	Lane's Stories for Children.....	6	.20	Do.
120.....	Johannot's Cats and Dogs.....	6	.14	Do.
	Bass's Nature's Stories for Young Readers—			
48.....	Plant Life.....	170	¢.205	Do.
83.....	Animal Life.....	170	¢.285	Do.
90.....	Burt's Little Nature Studies, Vol. 1.....	146	.205	New York.
18.....	Carter's Nature Study with Common Things.....	146	.475	Do.
	The Hlawaatha Primer.....	170	¢.32	Chicago or New York.
49.....	Schwartz's Five Little Strangers.....	6	.32	Do.
23.....	Ford's Nature's Byways.....	170	¢.31	Do.
90.....	Brooks's Stories of the Red Children.....	170	¢.32	Do.
30.....	Dutton's Fishing and Hunting.....	6	.24	Do.
57.....	Dutton's In Field and Pasture.....	6	.28	Do.
102.....	Stafford's Animal Fables.....	6	.24	Do.
20 sets.....	The Children's Hour, 10 vols. (Houghton, Mifflin Co.).....	170	¢15.50	Do.
	Third to fourth grades—			
90.....	Abbott's A Boy on a Farm.....	6	.36	Do.
62.....	Dana's Plants and Their Children.....	6	.52	Do.
23.....	Bartlett's Animals at Home.....	6	.36	Do.
47.....	Stokes's Ten Common Trees.....	6	.32	Do.
38.....	Eggleston's Stories of Great Americans for Little Americans.....	6	.32	Chicago or New York.
21.....	Pyle's Stories of Humble Friends.....	6	.40	Do.
64.....	Pratt's Legends of the Red Children.....	6	.34	Do.
22.....	Eggleston's Stories of American Life and Adventure.....	6	.40	Do.
68.....	Monteith's Some Useful Animals and What They Do for Us.....	6	.40	Do.
57.....	Williams's Choice Literature: Intermediate; Book I.....	146	.215	New York.
	Fourth to fifth grades—			
39.....	Fairy Tales for Little Readers.....	170	¢.25	Chicago or New York.
128.....	Dodds, The Indian Boy.....	170	¢.28	Do.
35.....	Baldwin's Fairy Stories and Fables.....	6	.28	Do.
14.....	Baldwin's Discovery of the Old Northwest.....	6	.48	Do.
17.....	Nature Studies on the Farm.....	6	.32	Do.
62.....	Long's Little Brother to the Bear.....	105	.425	Chicago, New York, Omaha, St. Louis, or San Francisco.
238.....	Baldwin's Primary Lessons in Physiology.....	146	.275	New York.
27.....	Baldwin's Fifty Famous Stories Retold.....	6	.28	Chicago or New York.
23.....	Walker's Our Birds and Their Nestlings.....	6	.48	Do.

¢ Cloth.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

SCHOOL BOOKS, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
1,942.....	Singing: Gospel Hymns, Nos. 1 to 6 combined, with music.	170	• \$0.635	Chicago or New York.
1,407.....	Carmina for Social Worship.....	170	• .29	Do.
1,408.....	Johnson's Songs of the Nation.....	170	• .505	Do.
	Ripley & Tapper's Natural Short Course in Music—			
230.....	Book 1.....	6	.28	Do.
152.....	Book 2.....	146	.315	New York.
41.....	Indian Story and Song from North America.....	170	1.00	Chicago or New York.
	Zuchtman's American Music System—			
38.....	Book 1.....	146	.31	New York.
8.....	Book 2.....	146	.37	Do.
8.....	Book 3.....	146	.42	Do.
68.....	Book 4.....	146	.42	Do.
229.....	Songs of the School and Flag.....	170	• .635	Chicago or New York.
8.....	Teacher's Manual.....	170	• .86	Do.
	Dictionaries:			
	Webster's Dictionary—			
420.....	Primary.....	6	.38	Do.
435.....	Common school.....	6	.58	Do.
114.....	High school.....	6	.78	Do.
229.....	Academic.....	6	1.20	Do.
17.....	International Unabridged.....	6	• 10.80	Do.
	Civics, and Civil Government:			
78.....	Forman's First Lessons in Civics.....	6	.48	Do.
129.....	Civics for Young Americans.....	3	.55	Chicago.
85.....	Mowery's Elements of Civil Government.....	170	• .61	Chicago or New York.
88.....	Dawes's How We Are Governed.....	146	.7975	New York.
	Wall maps:			
12.....	Arizona.....	193	d 2.25	Chicago.
7.....	California.....	193	d 1.60	Do.
3.....	Colorado.....	193	d 1.60	Do.
17.....	Hemispheres (Outline).....	88	• 1.00	Do.
3.....	Kansas.....	193	d 1.60	Do.
5.....	Minnesota.....	193	d 1.60	Do.
6.....	Nebraska.....	193	d 2.00	Do.
3.....	Nevada.....	193	d 2.25	Do.
10.....	New Mexico.....	193	d 2.25	Do.
8.....	North America (Outline).....	88	• 1.00	Do.
4.....	North Dakota.....	193	d 1.60	Do.
6.....	Oklahoma.....	193	d 1.60	Do.
3.....	Oregon.....	193	d 1.60	Do.
3.....	Pennsylvania.....	193	d 1.60	Do.
7.....	South Dakota.....	193	d 1.60	Do.
1.....	United States, large.....	193	d 5.00	Do.
2.....	United States (Outline).....	88	• 1.00	Do.
9.....	Utah.....	193	d 2.00	Do.
3.....	Washington.....	193	d 1.60	Do.
3.....	Wisconsin.....	193	d 1.60	Do.
2.....	Wyoming.....	193	d 3.75	Do.
	Registers, School:			
385.....	White's New Common School.....	6	.48	Chicago or New York.
	Slates:			
213 dozen.....	7 by 11 inches.....	76	.65	Do.
171 dozen.....	8 by 12 inches.....	76	.75	Do.
	Miscellaneous:			
9.....	Blackboards, 3 by 4 feet, portable, revolving, complete.....	7	5.25	Chicago.
2,764.....	Blackboard erasers.....	158	.0225	Do.
	Bibles, medium size—			
195.....	King James's version.....	76	.23	Chicago or New York.
390.....	Revised version.....	193	.29	Chicago.
81.....	New Testament, medium size, revised version.....	76	.39	Chicago or New York.
75.....	Call bells.....	7	.35	Chicago.
	Crayons, chalk—			
1,460 boxes.....	White, dustless.....	20	.155	Do.
290 boxes.....	Colored, assorted.....	20	.455	Do.
	Globes of the world—			
8.....	Large.....	193	8.00	Do.
22.....	Medium.....	193	• 2.50	Do.

• Cloth.

• Boards.

• Sheep Index.

• \$1 each extra charge for maps in spring roller cases; \$2 each extra for large United States.

• \$0.75 each extra for spring roller case.

• Wyoming, Idaho, and Montana.

• With movable meridian.

Contracts awarded under advertisement of February 14, 1910, for rubber goods, boots and shoes, medical supplies, hardware, enameled ware, etc., and school books—Continued.

SCHOOL BOOKS, ETC.—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
	Miscellaneous—Continued.			
75 dozen.....	Ink wells.....	7	\$0.15	Chicago.
1 135 hundred	Pencils, slate, sharpened.....	26	.07	New York.
297 pounds...	Plaster of Paris.....	193	¢.09	Chicago.
630 sq. yards...	Slated blackboard cloth.....	88	.28	Do.
131 \$100.....	Educational toy money, Milton Bradley Co. or equal.....	53	.16	New York.
38 gallons....	Wall slating, liquid.....	193	\$1.50	Chicago.
	Spencerian practice paper for penmanship, per 100 sheets—			
	Small.....	88	.065	Do.
111,500 sheets.	Large.....	88	.08	Do.
103,000 sheets.	Klemm's relief maps for pupils' hands.....	76	.22	Chicago or New York.
62.....	Holden's patent book covers:			
	No. 1 size, for small arithmetics, spellers, etc.	128	1.35	New York.
106 hundred...	No. 2 size, for readers, grammars, etc.	128	1.35	Do.
113 hundred...	No. 3 size, for larger books, advanced histories, etc.	128	1.35	Do.
56 hundred...	No. 4 size, for primary geographies.....	128	2.75	Do.
36 hundred...	No. 6 size, for advanced geographies.....	128	3.75	Do.
22 hundred...				

GROCERIES AND PROVISIONS.

315,780 lbs....	Bacon, short, clear sides, medium thickness.....	62	\$0.147	South Omaha.
315,640 lbs....	Beans, white navy, choice hand picked.....	49	.0358	Chicago.
223,880 lbs....	Coffee, Rio, Santos, or other similar quality.....	138	.0944	Do.
		252	¢.0487	San Francisco.
119,900 lbs....	Hard bread.....	204	¢.0485	Chicago, Kansas City
		62	.148	Omaha, or St. Paul.
79,630 pounds	Lard, pure and refined.....	62	23.00	South Omaha.
377 barrels...	Mess pork.....	62	.0275	Do.
67,000 pounds	Rice.....	216	¢.0275	Chicago.
743,000 lbs....	Sugar, granulated.....	107	¢.048	San Francisco.
12,000 pounds	Tea, Formosa Oolong.....	284	.18	Chicago.
256 pounds...	Allspice, ground.....	177	f. 125	St. Louis.
			¢.115	
28,480 pounds	Baking powder.....	138	A. 12633	Chicago.
			f. 11293	
7,310 pounds.	Barley, pearl.....	145	.0245	Do.
178 dozen....	Bath brick.....	40	.48	New York.
263 pounds...	Beeswax.....	177	.35	St. Louis.
920 dozen....	Bluing, powdered.....	40	.1172	New York.
712 pounds...	Candles, adamantine, 6's.....	4	.0725	Chicago.
600 pounds...	Cassia.....	145	f. 16	Do.
			¢.14	
303 pounds...	Cloves, ground.....	216	f. 19	Do.
			¢.18	
2,160 pounds.	Cocoa.....	138	f. 2124	Do.
			¢.1974	
6,410 pounds.	Cornstarch.....	138	¢.0250	Do.
500 pounds...	Cream tartar, ground crystals.....	138	f. 29	Do.
			¢.27	
490 pounds...	Ginger, African, ground.....	216	f. 16	Do.
			¢.15	
410 pounds...	Hops, fresh, pressed.....	40	f. 13	New York.
1,295 dozen...	Lye, concentrated.....	62	.473	South Omaha.
410 gross....	Matches, safety.....	145	.735	Chicago.
375 pounds...	Mustard, ground.....	138	f. 18	Do.
			¢.16	
1,580 pounds.	Pepper, black, ground.....	216	f. 15	Do.
			¢.14	
3,740 gallons..	Sirup, pure sugar cane, medium color:	186	.25	New York.
	In barrels of not less than 50 gallons.....	186	¢.3525	Do.
7,785 gallons..	In 10-gallon oak kegs.....	107	f. 355	San Francisco.
		186	¢.345	New York.
11,250 gallons..	In 15-gallon oak kegs.....	107	f. 335	San Francisco.
244,250 lbs....	Soap, laundry.....	190	.044	Kansas City.
123,350 lbs....	Soap chips.....	190	.0655	Do.

• In 5 and 10 pound tin cans with covers.

• Made with alcohol.

• Awarded 35,000 pounds.

• Awarded 84,900 pounds.

• This quantity only.

/ In 1-pound tins.

• In 1-pound tins.

• In 1-pound tins.

• Awarded 6,290 gallons.

• Awarded 1,495 gallons.

• Awarded 9,825 gallons.

• Awarded 1,425 gallons.

130 REPORT OF THE COMMISSIONER OF INDIAN AFFAIRS.

Contracts awarded under advertisement of February 10, 1910, for rolled barley, beef, mutton, bacon, corn, salt, and groceries—Continued.

NET BEEF—Continued.

Awards.	Points of delivery.	Contract No.	Price per hundred-weight.
<i>Pounds.</i>			
10,400.....	For Southern Ute School, Colo. (delivery at Ignacio, Colo.).....	59	\$7.97
8,000.....	Springfield School, S. Dak.....	131	7.50
38,400.....	Tomah School, Wis.....	173	7.23
16,000.....	Tongue River School, Mont.....	51	8.25
16,000.....	Truxton Canon School, Ariz.....	100	7.20
32,000.....	Tulalip School, Wash.....	93	8.90
12,000.....	Umatilla School, Oreg.....	183	9.50
23,200.....	Vermillion Lake School, Minn.....	9	8.46
24,000.....	Wahpeton School, N. Dak.....	23	7.65
20,000.....	Wittenberg School, Wis.....	297	8.00
	For Yankton School and Agency, S. Dak., delivery at—		
16,000.....	School.....	1	9.00
24,000.....	Agency.....		
13,200.....	Zuni School, N. Mex.....	275	8.00

COARSE SALT.

<i>Pounds.</i>			
50,350.....	F. o. b. cars Duluth, Minn.....	30	\$0.52
	For reshipment to the following schools, viz:		
	200 pounds Bena School, Minn.....		
	600 pounds Bismarck School, N. Dak.....		
	500 pounds Canton Insane Asylum, S. Dak.....		
	300 pounds Cass Lake School, Minn.....		
	500 pounds Cherokee School, N. C.....		
	400 pounds Cheyenne River School, S. Dak.....		
	1,000 pounds Cheyenne River Agency, S. Dak.....		
	Crow Agency and School, Mont.—		
	600 pounds for agency.....		
	400 pounds for Pryor School.....		
	Crow Creek School and Agency, S. Dak.—		
	1,100 pounds for school.....		
	5,000 pounds for agency.....		
	3,000 pounds Flandreau School, S. Dak.....		
	500 pounds Fort Hall Agency, Idaho.....		
	400 pounds Fort Belknap School, Mont.....		
	1,000 pounds Fort Berthold Agency, N. Dak.....		
	400 pounds Fort Peck School, Mont.....		
	3,000 pounds Fort Totten School, N. Dak.....		
	200 pounds Turtle Mountain Chippewa Indians (under charge of Fort Totten School).....		
	4,000 pounds Genoa School, Nebr.....		
	4,000 pounds Hayward School, Wis.....		
	250 pounds Kaw School, Okla.....		
	1,000 pounds Keshena School, Wis.....		
	500 pounds Kickapoo School, Okla.....		
	400 pounds Leech Lake School, Minn.....		
	1,000 pounds Lower Brulé School, S. Dak.....		
	1,000 pounds Mount Pleasant School, Mich.....		
	100 pounds Bois Fort Chippewa Indians (under charge Nett Lake School).....		
	100 pounds Omaha Agency, Nebr.....		
	1,000 pounds Oneda School, Wis.....		
	200 pounds Pine Ridge School, S. Dak.....		
	2,000 pounds Pipestone School, Minn.....		
	200 pounds Pottawatomie Agency, Kans.....		
	5,000 pounds Rapid City School, S. Dak.....		
	Red Lake Agency and Schools, Minn.—		
	400 pounds for agency.....		
	500 pounds for school.....		
	200 pounds for Cross Lake School.....		
	500 pounds Rosebud School, S. Dak.....		
	500 pounds Seneca School, Okla.....		
	500 pounds Shawnee School, Okla.....		
	800 pounds Sisseton School, S. Dak.....		
	1,000 pounds Southern Ute Agency, Colo.....		
	200 pounds Springfield School, S. Dak.....		
	2,000 pounds Tomah School, Wis.....		
	Tongue River School and Agency, Mont.—		
	500 pounds for school.....		
	8,000 pounds for agency.....		
	600 pounds Vermillion Lake School, Minn.....		
	1,000 pounds Wahpeton School, N. Dak.....		

Contracts awarded under advertisement of February 10, 1910, for rolled barley, beef, mutton, bacon, corn, salt, and groceries—Continued.

COARSE SALT—Continued.

Awards.	Points of delivery.	Contract No.	Price per hundred-weight.
	F. o. b. cars Duluth, Minn.—Continued.		
	For reshipment to the following schools—Continued.		
	White Earth schools, Minn.—		
	1,200 pounds for school.....		
	400 pounds for Pine Point School.....		
	300 pounds for Wild Rice River School.....		
	100 pounds for Pembina Day School.....		
	100 pounds for Beaulieu Day School.....		
	100 pounds for Poplar Grove Day School.....		
	100 pounds for Buffalo River Day School.....		
	500 pounds for Wittenberg School, Wis.....		
Pounds.	F. o. b. San Francisco warehouse, Cal.	29	\$0.60
18,292.....	For shipment to the following schools:		
	Blackfeet Agency and schools, Mont.—		
	1,400 pounds for agency.....		
	200 pounds for school.....		
	232 pounds for Holy Family Mission School.....		
	500 pounds Carson School, Nev.....		
	500 pounds Colville (Fort Spokane) School, Wash.....		
	2,000 pounds Fort Apache Agency, Ariz.....		
	300 pounds Fort Lapwai School, Idaho.....		
	3,000 pounds Fort Mohave School, Ariz.....		
	500 pounds Fort Yuma School, Cal.....		
	200 pounds Greenville School, Cal.....		
	400 pounds Hoopa Valley School, Cal.....		
	100 pounds Kalbav School, Ariz.....		
	200 pounds Moqui Indians (under charge of Moqui School, Ariz.).....		
	200 pounds Round Valley School, Cal.....		
	5,000 pounds Salem School, Oreg.....		
	100 pounds Shilwell School, Utah.....		
	1,000 pounds Tulalip School, Wash.....		
	300 pounds Umatilla School, Oreg.....		
	Warm Springs Agency and schools—		
	500 pounds for agency.....		
	1,000 pounds for school.....		
	100 pounds for Simnasho Day School.....		
	500 pounds Yakima School, Wash.....		
1,000.....	For Albuquerque School, N. Mex. (delivery at Albuquerque, N. Mex.).....	237	1.33
2,000.....	For Cantonment School, Okla. (delivery at Canton, Okla.).....	237	1.33
	For Cheyenne and Arapaho School and Agency, Okla. (delivery at Concho Siding, Okla.):		
2,000.....	School.....	237	1.33
600.....	Agency.....	237	.83
15,000.....	Chilocco School, Okla.....	237	2.43
4,000.....	For Fort Bidwell School, Cal. (delivery at Alturas, Cal.).....	237	.83
3,450.....	For Haskell Institute, Kans. (delivery at Lawrence, Kans.).....	237	
	For Jicarilla School and Agency (delivery at Dulce, N. Mex.):		
1,500.....	School.....	237	1.87
1,000.....	Agency.....	237	.93
	For Kiowa Agency and schools, Okla. (delivery at Anadarko, Okla.):		
1,500.....	Agency.....	237	.97
500.....	Riverside School.....	237	1.27
1,500.....	Fort Sill School (delivery at Lawton, Okla.).....	13	1.40
1,200.....	Rainy Mountain School (delivery at Gotebo, Okla.).....	237	1.93
600.....	For Leupp School, Ariz. (delivery at Sunshine, Ariz.).....	237	
600.....	For Mescalero Agency, N. Mex. (delivery at Tularosa, N. Mex.).....	237	.85
500.....	For Navaho Agency and School, N. Mex. (delivery at Gallup, N. Mex.):		
500.....	Agency.....	96	1.03
100.....	Tohatchi School.....	237	1.03
1,000.....	For Otee School, Okla. (delivery at Red Rock, Okla.).....	237	1.03
	For Pawnee School and Agency, Okla. (delivery at Pawnee, Okla.):		
2,000.....	School.....	237	1.19
400.....	Agency.....	103	1.50
3,000.....	For Phoenix School, Ariz. (delivery at Phoenix, Ariz.).....	237	.97
1,000.....	For Pima School, Ariz. (delivery at Casa Grande, Ariz.).....	301	2.20
	For Ponca School and Agency, Okla. (delivery at White Eagle, Okla.):		
1,000.....	School.....	237	1.19
500.....	Agency.....	237	1.99
300.....	For Rice Station School, Ariz. (delivery at Rice Station, Ariz.).....	237	1.33
400.....	For Sac and Fox School, Okla. (delivery at Stroud, Okla.).....	30	1.08
500.....	For Navaho Indians, under charge of San Juan School, N. Mex. (de-		
	livery at Farmington, N. Mex.).....	13	1.15
2,000.....	For Seger School, Okla. (delivery at Weatherford, Okla.).....		
600.....	Standing Rock Agency School.....		
750.....	For Western Navaho School, Ariz. (delivery at Flagstaff, Ariz.).....		

Contracts awarded under advertisement of February 10, 1910, for rolled barley, beef, mutton, bacon, corn, salt, and groceries—Continued.

FINE SALT.

Awards.	Points of delivery.	Contract No.	Price per hundred-weight.
<i>Pounds.</i> 67,964.....	F. o. b. cars Duluth, Minn..... For reshipment to the following schools, etc., viz.— 300 pounds Bena School, Minn..... 200 pounds Bismarck School, N. Dak..... Cantonment School, Okla.— 750 pounds for school..... 20 pounds for police..... 200 pounds Canton Insane Asylum, S. Dak..... 100 pounds Cass Lake School, Minn..... 500 pounds Cherokee School, N. C..... Cheyenne River School and Agency, S. Dak.— 800 pounds for school..... 500 pounds for agency..... Crow Agency, Mont.— 400 pounds for Pryor School..... 300 pounds Crow Creek School, S. Dak..... 3,000 pounds Flandreau School, Wis..... 750 pounds Fort Hall School, Idaho..... 600 pounds Fort Belknap School, Mont..... 200 pounds Fort Berthold day schools, N. Dak..... 800 pounds Fort Peck School, Mont..... 1,000 pounds Fort Totten School, N. Dak..... 300 pounds Turtle Mountain day schools, N. Dak. (under charge of Fort Totten School)..... 500 pounds Grand Junction School, Colo..... 1,500 pounds Hayward School, Wis..... 100 pounds Kaw School, Okla..... Keshena School, Wis.— 500 pounds for school..... 100 pounds for Menominee Indians..... 500 pounds Kickapoo School, Kans..... 1,000 pounds Lac du Flambeau School, Wis..... 400 pounds Leech Lake School, Minn..... 3,000 pounds Mount Pleasant School, Mich..... 130 pounds Navaho Springs School, Colo..... 200 pounds Nett Lake School, Minn..... 500 pounds Oneida School, Wis..... 1,000 pounds Ouray Agency, Utah..... Pine Ridge schools, S. Dak.— 1,200 pounds for school..... 1,500 pounds for day schools..... 2,500 pounds Pipestone School, Minn..... 2,000 pounds Rapid City School, S. Dak..... Red Lake schools, Minn.— 800 pounds for school..... 400 pounds for Cross Lake School..... Rosebud Agency and schools, S. Dak.— 6,000 pounds for agency..... 2,040 pounds for school..... 2,000 pounds for day schools..... 300 pounds Sac and Fox School, Okla..... Sac and Fox School, Iowa— 500 pounds for school..... 100 pounds for Mesquakie Day School..... 500 pounds Santee Agency, Nebr., for Santees..... 1,000 pounds Shoshone School, Wyo..... 400 pounds Sisseton School, S. Dak..... 150 pounds Springfield School, S. Dak..... 1,200 pounds Tomah School, Wis..... Tongue River School, Mont.— 300 pounds for school..... 200 pounds for day school..... 300 pounds, Uintah School, Utah..... 600 pounds, Vermillion Lake School, Minn..... 1,000 pounds, Wahpeton School, N. Dak..... White Earth Schools, Minn.— 1,000 pounds for White Earth School..... 100 pounds for Pine Point School..... 100 pounds for Porterville day school..... 300 pounds for Wild Rice River School..... 100 pounds for Pembina day school..... 50 pounds for Poplar Grove day school..... 50 pounds for Buffalo River day school..... 200 pounds for Chippewas..... 700 pounds, Wittenberg School, Wis..... 800 pounds, Yankton School, S. Dak..... 800 pounds, Colville day schools, Wash..... 500 pounds, Fort Lapwai School, Idaho.....	30	\$0.91

Contracts awarded under advertisement of February 10, 1910, for rolled barley, beef, mutton, bacon, corn, salt, and groceries—Continued.

FINE SALT—Continued.

Awards.	Points of delivery.	Contract No.	Price per hundred-weight.
	F. o. b. cars Duluth, Minn.—Continued. For reshipment to the following schools, etc.—Continued.		
	Fort McDermitt School, Oreg.—		
	100 pounds for school.....		
	50 pounds for police.....		
	600 pounds, Fort Yuma School, Cal.....		
	1,000 pounds, Greenville School, Cal.....		
	3,000 pounds Puyallup School, Wash.....		
	200 pounds, Round Valley School, Cal.....		
	7,600 pounds, Salem School, Oreg.....		
	800 pounds, Truxton Canyon School, Ariz.....		
	2,400 pounds, Tulalip School, Wash.....		
	Walker River School, Nev.—		
	250 pounds for school.....		
	24 pounds for police.....		
	Warm Springs School, Oreg.—		
	1,000 pounds for school.....		
	50 pounds for police.....		
	Western Shoshone School and Agency, Nev.—		
	300 pounds for school.....		
	500 pounds for agency.....		
	200 pounds, Yakima Agency, Wash.....		
Pounds.	For Albuquerque School, N. Mex. (delivery at Albuquerque, N. Mex.):	237	\$1.53
2,500.....	Blackfeet Agency and Schools, Mont.:		
	Agency.....	240	2.00
1,000.....	Agency School.....	240	2.00
800.....	Holy Family Mission School.....	240	2.10
1,000.....	Day schools.....	240	1.85
210.....	For Carson School, Nev. (delivery at Indian School on V. and T. R. R.):	237	2.43
2,000.....	For Cheyenne and Arapaho School, Okla. (delivery at Concho Siding, Okla.):		
	School.....	237	1.75
800.....	Police.....		
20.....	Chilocco School, Okla.....	237	.99
6,000.....	For Colorado River School and Agency, Ariz. (delivery at Parker, Ariz.):		
	School.....	237	2.49
1,000.....	Agency.....		
750.....	Fort Apache Agency, Ariz.:		
	Agency.....	301	2.90
1,000.....	Agency School.....		
2,100.....	Cibecue day school.....		
100.....	East Fork day school.....		
100.....	For Fort Bidwell School, Cal. (delivery at Alturas, Cal.).....	237	2.69
750.....	For Fort Mojave School, Ariz. (delivery at Needles, Cal.).....	237	2.17
2,000.....	For Genoa School, Nebr. (delivery at Genoa, Nebr.).....	237	1.27
2,500.....	For Haskell Institute (delivery at Lawrence, Kans.).....	237	.97
9,000.....	For Hoopa Valley School, Cal. (delivery at Korb, Cal.).....	237	1.63
1,600.....	For Jicarilla School and Agency, N. Mex. (delivery at Dulce, N. Mex.):		
	School.....	237	2.27
1,120.....	Agency.....		
1,000.....	For Kiowa Schools, Okla.:		
	Fort Bill School (delivery at Lawton, Okla.).....	237	1.24
1,300.....	Rainy Mountain School (delivery at Gotebo, Okla.).....	278	1.53
300.....	Lower Brule School, S. Dak.....		1.50
800.....	For Mesquero School and Agency, N. Mex. (delivery at Tularosa, N. Mex.):		
	School.....	237	2.17
1,300.....	Agency.....		
360.....	For Navajo Agency and Schools (delivery at Gallup, N. Mex.):		
	Agency.....	96	1.50
200.....	School.....		
1,300.....	Tohatchi School.....	237	2.23
1,000.....	For Navajo Springs Agency, Colo. (delivery at Mancos, Colo.).....		
1,500.....	For Nevada School and Agency, Nev. (delivery at Wadsworth, Nev.):		
	School.....	237	2.17
800.....	Agency.....		
360.....	For Osage Agency, Okla. (delivery at Pawhuska, Okla.).....	237	1.18
50.....	For Otos School, Okla. (delivery at Red Rock, Okla.).....	237	1.28
800.....	For Pawnee School, Okla. (delivery at Pawnee, Okla.).....	237	1.27
1,000.....	For Phoenix School, Ariz. (delivery at Phoenix, Ariz.).....	237	1.39
6,000.....	For Pima School and Agency, Ariz. (delivery at Casa Grande, Ariz.):		
	School.....	103	1.75
2,000.....	Agency.....		
800.....	For Ponca School, Okla. (delivery at White Eagle Station, Okla.).....	237	1.27
600.....			

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Contracts awarded under advertisement of February 10, 1910, for rolled barley, beef, mutton, bacon, corn, salt, and groceries—Continued.

FINE SALT—Continued.

Awards.	Points of delivery.	Contract No.	Price per hundred-weight.
<i>Pounds.</i>			
2,500.....	For Rice Station School (delivery at Rice, Ariz.).....	237	\$2.19
2,500.....	Santa Fe School, N. Mex.	119	1.25
2,000.....	For San Juan School (delivery at Farmington, N. Mex.).....	237	2.43
1,200.....	For Seger School, Okla. (delivery at Weatherford, Okla.).....	237	1.47
1,000.....	For Seneca School, Okla. (delivery at Wyandotte, Okla.).....	237	1.29
700.....	For Shawnee School, Okla. (delivery at Thackery, Okla.).....	237	1.59
8,000.....	Sherman Institute, Cal.	302	1.25
500.....	For Southern Ute School and Agency, Colo. (delivery at Ignacio, Colo.):		
1,900.....	School.....	237	2.23
	Agency.....		
	Standing Rock Agency, for:		
1,200.....	Agency School.....	30	1.39
300.....	Day schools.....		
800.....	Grand River School.....		
750.....	For Western Navajo School, Ariz. (delivery at Flagstaff, Ariz.).....	13	1.70
950.....	For Zuni School, N. Mex. (delivery at Gallup, N. Mex.).....	96	1.50

Contract awarded under advertisement of February 1, 1910, for live stock.

Award.	Description.	Point of delivery.	Contract No.	Unit price.
500.....	Heifers.....	San Carlos Agency, Ariz.....	238½	\$21.00

Contracts awarded under advertisement of May 2, 1910, for live stock, wagons, agricultural implements, etc. (for Sioux allottees).

LIVE STOCK.

Award.	Description.	Point of delivery.	Contract No.	Unit price.
327.....	Heifers.....	Cheyenne River Agency, S. Dak.....	296	\$26.75
38.....	Milch cows.....			40.00
52.....	Mares.....		247	134.44
100.....	do.....		247	136.24
100.....	do.....	Pine Ridge Agency, S. Dak.....	247	138.84
50.....	do.....		247	142.44
1,000.....	Heifers.....		223	24.00
1,000.....	do.....		223	24.89
1,496.....	do.....	Standing Rock Agency, N. Dak.....	223	26.38
352.....	Milch cows.....		256	39.45
50.....	Mares.....		117	139.00
20.....	Heifers.....		279	27.93
38.....	Milch cows.....	Cheyenne River Agency, S. Dak.....	279	39.93
38.....	Mares.....		15	123.90
38.....	do.....		15	133.95

Contracts awarded under advertisement of May 2, 1910, for live stock, wagons, agricultural implements, etc. (for Sioux allottees)—Continued.

WAGONS, AGRICULTURAL IMPLEMENTS, ETC.

Award.	Article.	Contract No.	Unit price.	Point of delivery.
241.....	Wagons, narrow track, complete, with hickory axletrees, bent front hounds, ironed on both sides below the reach and also on the under side of the top sliding bar with iron, according to size of wagons. Reaches to be ironed on both sides opposite their respective irons; eveners, lower box, neck yoke, singletrees, stay chains, tongue, and flat iron bar under the whole length of axles, viz: California, equipped with gear brake, clipped gear, and hooded steel skains—			
222.....	3 x 9 in., tires 1½ x ⅝ inch..... Ordinary, equipped with hooded steel skain and box brake—	144	\$46.25 47.17 48.06 49.00 58.04	Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City. San Francisco.
19.....	3 x 9 in., tires 1½ x ⅝ inch..... Separate price was invited for:	144	42.00 43.82 43.82 44.74 53.39	Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City. San Francisco.
241.....	Spring seats.....	144	1.69 1.69 1.76 1.78 2.17	Chicago. St. Louis. St. Paul. Omaha, Kansas City, or Sioux City. San Francisco.
214.....	Axes, assorted, 3½ to 4½ lbs., Yankee pattern, inserted or overlaid steel.	158	33½	Chicago.
18 dozen.....	Handles, ax, 36-inch, hickory, "extra," XXX.	158	1.25	Do.
214.....	Forks, hay, c. s., 4 oval tines, strapped ferrule, 6½-foot handles, extra tied.	158	.305	Do.
241.....	Harrows, 60 teeth, ½ x 8 inches, steel, with drawbar and clevises.	249	7.50	Chicago, Kansas City, or South Bend, Ind.
214.....	Hoes, garden, solid socket, c. s., 6½-inch, extra quality.	158	.21	Chicago.
214.....	Plows, 12-inch, c. s., 2-horse, with extra share.	95	7.00	Chicago, Omaha, St. Paul, or Sioux City.
241.....	Harness, double, complete, with breeching, Concord hames.	148	31.15	Chicago.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools.

GROCERIES.

Award.	Article.	Contract No.	Unit price.	Point of delivery.
104 pounds...	Allspice, ground.....	134	\$0.164 b. 131	San Francisco.
1,565 pounds.	Barley, pearl, about No. 3.....	224	.0397	Do.
52 dozen.....	Bath brick.....	224	.395	Do.
132 pounds...	Beeswax.....	224	.3475	Do.
390 dozen.....	Bluing, powdered.....	29	.75	Do.
590 pounds...	Candles, adamantine, 8's.....	134	.124	Do.
241 pounds...	Cassia.....	224	a. 22 b. 195	Do.
18 pounds...	Cloves, ground.....	177	a. 19 b. 18	St. Louis.
900 pounds...	Cocoa.....	145	a. 22 b. 21	Chicago.

• In ½-pound tins.

• In 1-pound tins.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

GROCERIES—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
1,980 pounds.	Cornstarch.....	134	\$0.039	San Francisco.
190 pounds...	Cream tartar, ground crystals.....	224	a. 2475 b. 3175	Do.
356 pounds...	Ginger, African, ground.....	177	a. 17 b. 16	St. Louis.
435 pounds...	Hops, fresh, pressed.....	224	a. 2075 a. 2125	San Francisco.
895 dozen....	Lye, concentrated.....	224	.60	Do.
220 gross....	Matches, safety.....	145	.735	Chicago.
41 pounds....	Mustard, ground.....	224	a. 18 b. 1575	San Francisco.
790 pounds...	Pepper, black, ground.....	224	a. 18 b. 15	Do.
	Sirup, pure sugar cane, medium color—			
320 gallons....	In barrels of not less than 50 gallons.....	24	.2355	Do.
8,545 gallons..	In 10-gallon oak kegs.....	24	.3345	Do.
2,595 gallons..	In 15-gallon oak kegs.....	24	.3147	Do.
950 pounds...	Soda, bicarb.....	224	a. 075 b. 065	Do.
15,440 pounds	Soda, washing.....	134	.0105	Do.
9,750 pounds..	Starch, laundry.....	134	.036	Do.
	Vinegar, pure cider—			
100 gallons....	In barrels.....	224	.1875	Do.
1,100 gallons..	In kegs.....	224	a. 27 a. 26	Do.

ENAMELED WARE, LAMPS, ETC.

91 dozen....	Bowls, white enamel ware:	71	\$1.08	San Francisco.
106 dozen....	Pint.....	71	1.44	Do.
	Quart.....			
54 dozen....	Burners, lamp, heavy, Sun:	122	.37	Do.
19 dozen....	No. 1.....	122	.51	Do.
34.....	No. 2.....	122	.41	Do.
	Chambers, with covers, white enamel ware; size 9½ x 5 inches.			
	Crocks, with covers; stoneware, acid fruit-glass lining:			
52.....	1-gallon.....	224	.175	Do.
96.....	2-gallon.....	224	.35	Do.
124.....	3-gallon.....	224	.54	Do.
14 dozen....	Cruets, vinegar, glass.....	28	.95	Do.
813 dozen....	Cups, tea, white enamel ware; diameter not less than 3½ inches nor more than 4½ inches; depth not less than 2½ inches nor more than 3½ inches.	224	1.095	Do.
	Dishes, meat, white enamel ware:			
283.....	Not less than 14 inches nor more than 15 inches in length.	198	.23	Do.
287.....	Not less than 16 inches nor more than 17 inches in length.	198	.29	Do.
790.....	Dishes, vegetable, oblong, without covers, white enamel ware, not less than 14 x 10 inches.	127	.295	Do.
	Globes:			
17 dozen....	Lantern, tubular, safety, No. 0.....	122	.66	Do.
52.....	For tubular street lamps, No. 3.....	16	.48	Do.
	Lamp shades:			
6.....	Metal, for Mammoth hanging lamp; 20-inch.	28	.205	Do.
51.....	Porcelain, 7-inch, for students' lamps.....	71	.13	Do.
	Lamps:			
93.....	Bracket, heavy metal, with cup and thumb-screw for reflector, complete, with glass fount, No. 2 sun burner, and chimney, and 8-inch glass reflector and oil gauge.	123	.62	Do.
42.....	Table, No. 4 B and H Radiant, nickel-plated, complete, with 10-inch opal dome shade, holder, burner, and lead-glass chimney.	196	1.47	Do.
31.....	Student's "Perfection" No. 1, complete, with opal shade and chimney.	37	3.30	Do.
	Lamps, hanging, Mammoth No. 5 B and H Radiant, complete:			
33.....	With 20-inch metal shade, burner, and chimney.	37	2.95	Do.
1.....	With 14-inch opal dome shade, burner, and lead-glass chimney.	37	3.45	Do.

a In ½-pound tins.
b In 1-pound tins.

c In ½-pound tins.
d In 5-gallon kegs.

e In 10-gallon kegs.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

ENAMELED WARE, LAMPS, ETC.—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
42.....	Lamps, street, tubular, No. 3, globe with burner and time gauge, complete.	37	\$3. 70	San Francisco.
14 dozen.....	Lamp chimneys, sun-burner, pure lead glass: No. 1.....	196	.50	Do.
69 dozen.....	No. 2.....	196	.69	Do.
45 dozen.....	Lamp chimneys, for "Perfection" No. 1 student's lamp.	28	.42	Do.
9 dozen.....	Lamp chimneys, pure lead glass: For No. 96 B and H Mammoth lamp.....	196	1.82	Do.
21 dozen.....	For No. 2 B and H lamp.....	196	.87	Do.
15 dozen.....	Mammoth, for No. 5 B and H Radiant lamp.....	71	2.00	Do.
17 dozen.....	For No. 4 B and H Radiant lamp.....	71	1.36	Do.
6 dozen.....	Lampwicks: No. 0.....	37	.02	Do.
18 dozen.....	No. 1.....	37	.025	Do.
69 dozen.....	No. 2.....	37	.0865	Do.
18 dozen.....	Lampwicks, for—"Perfection" No. 1 student's lamp.....	37	.095	Do.
4 dozen.....	Tubular street lamp, No. 3.....	71	.0625	Do.
24 dozen.....	No. 96 B and H Mammoth lamp.....	196	.63	Do.
14 dozen.....	No. 2 B and H lamp.....	71	.23	Do.
10 dozen.....	No. 5 B and H Radiant lamp.....	37	.24	Do.
20 dozen.....	No. 4 B and H Radiant lamp.....	71	.35	Do.
214.....	Lanterns, tubular, safety.....	37	.338	Do.
48 dozen.....	Pepper sprinklers, glass.....	37	.28	Do.
276.....	Pitchers, white enamel ware: Pint.....	224	.2975	Do.
20.....	Quart.....	127	.395	Do.
25 dozen.....	Pitchers, sirup, glass, pint, metal top.....	28	1.88	Do.
457.....	Pitchers, water, white enamel ware: 2-quart.....	122	\$.345	Do.
260.....	3-quart.....	196	\$.38	
117.....	Pitchers, washbowl, to hold 5 quarts, white enamel ware.....	122	.41	Do.
240 dozen.....	Plates, white enamel ware: Dinner, diameter not less than 9½ inches nor more than 10½ inches.....	224	.795	Do.
254 dozen.....	Sauce.....	122	\$.65	Do.
6 dozen.....	Soup, not less than 9½ inches nor more than 10½ inches.....	196	\$.71	
14.....	Reflectors, for bracket lamps; diameter, 8 inches.....	122	.93	Do.
228 dozen.....	Saucers, tea, white enamel ware; diameter not less than 5½ inches nor more than 5½ inches.....	196	.21	Do.
198 dozen.....	Tumblers, glass, plain, medium heavy, not less than 3 inches in diameter and 3 inches in depth.....	122	\$.66	Do.
248.....	Washbowls, white enamel ware: Diameter not less than 15½ inches.....	196	.27	Do.
55.....	Diameter not less than 12 inches.....	37	.35	Do.
46.....	Diameter not less than 14 inches.....	127	.195	Do.
		122	.225	Do.

FURNITURE AND WOODEN WARE.

436.....	Baskets, clothes, whole willow, large.....	37	\$0. 74	San Francisco.
64.....	Bedsteads, double, 6 feet 4 inches long inside and 4 feet wide; head and foot ends of butt-welded standard pipe, each end having butt-welded pipe cross rods and solid round steel uprights; fabric "National," thoroughly coated with pure tin applied by the molten-bath process after assembling.	225	5.95	Do.
434.....	Bedsteads, single, wrought iron frame; fabric "National," thoroughly coated with pure tin applied by the molten-bath process after assembling: Height from floor 27 inches.....	225	4.95	Do.
442.....	Height from floor 17 inches.....	225	4.95	Do.
4.....	Bowls, wooden chopping, round: 14-inch.....	71	.22½	Do.
40.....	17-inch.....	71	.39	Do.

a Awarded 300.

b Awarded 267.

c Awarded 75 dozen.

d Awarded 179 dozen.

e Sample of sauce plates awarded to fill this item.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

FURNITURE AND WOODEN WARE—Continued.

Awards.	Articles.	Contract No.	Unit price.	Point of delivery.
365 dozen.....	Brooms: 5-sewed, to weigh not less than 27 pounds per dozen.	198	\$4. 73	San Francisco.
62 dozen.....	Whisk.....	37	1. 54	Do.
40 dozen.....	Brushes: Shoe, dauber, horsehair.....	224	. 78	Do.
42 dozen.....	Shoe, polishing, horsehair.....	224	1. 82	Do.
16 dozen.....	Stove, 5-row, 10-inch.....	127	1. 25	Do.
19.....	Buckets, well, oak, extra strong.....	122	. 49	Do.
110.....	Bureaus, with glass, with dovetailed drawers and brass handles.	133	12. 75	Do.
42.....	Chairs: Typewriter, oak; mounted with a swivel, adjustable as to height, without arms, and back so made as to become a support at all times to the back of the operator.	92	3. 85	Do.
75 dozen.....	Wood, bow back, 4 spindles to back.....	294	7. 82	Do.
91.....	Clocks, 8-day, pendulum or spring lever.....	92	2. 95	Do.
13,600 feet.....	Clotheslines, galvanized wire, No. 18, hollow center, in lengths of 100 feet, per 100 feet.	127	. 245	Do.
207 gross.....	Clothespins, spring, U. S. pattern or equal.....	16	. 375	Do.
14.....	Desks, office, medium size and quality.....	133	15. 00	Do.
10.....	Desks, school, with seats, double: No. 3, for scholars 13 to 15 years old.....	259	3. 25	Do.
7.....	No. 4, for scholars 11 to 13 years old.....	259	3. 21	Do.
7.....	No. 5, for scholars 8 to 11 years old.....	259	3. 07	Do.
5.....	No. 6, for scholars 5 to 8 years old.....	259	3. 04	Do.
4.....	Desks, school, back seats for, double: No. 2.....	259	2. 76	Do.
4.....	No. 3.....	259	2. 59	Do.
22.....	Desks, teacher's, medium size and quality.....	294	10. 45	Do.
48 dozen.....	Dusters, counter, bristle or horsehair.....	122	2. 58	Do.
87.....	Machines, sewing "Singer" or "Home:" Family, with cover and accessories.....	52	17. 00	Do.
2.....	Tailor's, with attachments.....	52	20. 00	Do.
135.....	Mattresses: Double, 76 inches long, 48 inches wide.....	251	3. 00	Do.
1,223.....	Single, 76 inches long, 30 inches wide.....	251	2. 50	Do.
277.....	Mirrors, plain oak frame, bevel glass; glass to measure not less than 15 x 18 inches.	123	1. 70	Do.
100 dozen.....	Mopsticks, best quality, extra heavy.....	198	. 99	Do.
6.....	Pails, oak, three iron hoops, heavy, stable pattern.	122	. 54	Do.
746.....	Pillows, 20 x 30 inches, 3 lbs. each, all S. A. hair, or all fiber filling; ticking to be A. C. A. grade.	106	1. 05	Do.
34.....	Rolling-pins, 2½ x 13 inches, exclusive of handle.	127	. 095	Do.
1,240 pounds.	Rope, manila, 1-inch, subject to actual tare, Boston boltrope.	272	. 08	Do.
1,145 pounds.	Rope, manila, subject to actual tare: 1-inch.....	272	. 08	Do.
945 pounds.....	1-inch.....	272	. 08	Do.
770 pounds.....	1-inch.....	272	. 08	Do.
1,415 pounds.	1-inch.....	272	. 08	Do.
450 pounds.....	1-inch.....	272	. 08	Do.
157 pounds.....	Bash cord, braided cotton No. 8.....	36	. 27	Do.
74 dozen.....	Stools, wood; all-wood seat; height 18 inches; joints in seat to be outside of leg mortise.	92	6. 19	Do.
230.....	Washboards, all metal: No. 1, family size.....	304	. 33	Do.
42.....	Washing machines, "Boos" No. 5 or equal, extra heavy.	304	5. 70	Do.
4.....	Washtubs, wood, inside measurement; inside not painted: 20½ inches in diameter by 9½ inches deep.....	122	. 77	Do.
4.....	23 inches in diameter by 10½ inches deep.....	122	. 87	Do.
4.....	25 inches in diameter by 11½ inches deep.....	122	1. 14	Do.
56.....	Wringers, clothes, wood frame; rolls 12 x 1½ inches	45	2. 40	Do.

HARNESS, LEATHER, SHOE FINDINGS, SADDLERY, ETC.

4 dozen.....	Awl hafts, patent, pegging.....	167	\$0. 44	San Francisco.
4 dozen.....	Awl hafts, patent, sewing:			
6 dozen.....	Harness.....	16	. 50	Do.
4 dozen.....	Shoemaker's.....	72	. 45	Do.
64 dozen.....	Awls, assorted:			
27 dozen.....	Patent, pegging.....	72	. 07	Do.
24 dozen.....	Regular, harness, sewing.....	72	. 125	Do.
	Patent, sewing, regular, shoemaker's.....	16	. 10	Do.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARNESS, LEATHER, SHOE FINDINGS, SADDLERY, ETC.—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
1½ dozen.....	Awls, round, pad, shouldered, with riveted handles.	16	\$2.25	San Francisco.
19 dozen.....	Bits, loose ring, X. C., 2½-inch, jointed, heavy mouthpiece.	110	•.55	Chicago, Jeffersonville, Ind., or St. Louis.
3,250 boxes.....	Blacking, shoe.....	72	.03	San Francisco.
3,250 boxes.....	Paste polish, for shoes.....	72	.065	Do.
221.....	Brooms, stable, with handles.....	82	.38	Do.
83.....	Brushes, horse, leather backs.....	198	.37	Do.
3 dozen.....	Buckles, Texas, breast strap, buckle snaps and buckles, malleable iron, X. C., 1½-inch.	110	70	Chicago, Jeffersonville or St. Louis.
	Buckles, bar rein, with roller, malleable iron, X. C.:			
5½ gross.....	1-inch.....	110	.75	Do.
7 gross.....	1-inch.....	110	1.00	Do.
8 gross.....	1-inch.....	110	1.15	Do.
9 gross.....	1-inch.....	110	1.48	Do.
	Buckles, harness, sensible, malleable iron, X. C.:			
1 gross.....	1-inch.....	110	.50	Do.
1 gross.....	1-inch.....	110	.52	Do.
2½ gross.....	1-inch.....	110	.70	Do.
1 gross.....	1-inch.....	110	.95	Do.
2½ gross.....	1-inch.....	110	1.20	Do.
1½ gross.....	1½-inch.....	110	1.90	Do.
1 gross.....	1½-inch.....	110	2.45	Do.
1 gross.....	Buckles, roller, girth, malleable iron, X. C., 1½-inch.	110	1.60	Do.
	Buckles, roller, harness, malleable iron, X. C.:			
2 gross.....	1-inch.....	110	.50	Do.
1 gross.....	1-inch.....	110	.55	Do.
7 gross.....	1-inch.....	110	.60	Do.
7 gross.....	1-inch.....	110	.75	Do.
7 gross.....	1-inch.....	110	.85	Do.
4 gross.....	1½-inch.....	110	1.20	Do.
3 gross.....	1½-inch.....	110	1.60	Do.
4 gross.....	1½-inch.....	110	1.90	Do.
2 gross.....	2-inch.....	110	2.40	Do.
	Buckles, trace, 3-loop, Champion, X. C.:			
5 dozen pairs.....	1½-inch.....	110	1.00	Do.
9 dozen pairs.....	1½-inch.....	110	1.15	Do.
2 dozen pairs.....	2-inch.....	110	1.50	Do.
50.....	Chains, halter, with snap and swivel, 6 feet long.	198	.22	San Francisco.
	Cockeyes, screwed, X. C.:			
2½ dozen.....	1½-inch.....	110	.30	Chicago, Jeffersonville or St. Louis.
18 dozen.....	1½-inch.....	110	.33	Do.
13 dozen.....	1½-inch.....	110	.41	Do.
6 dozen.....	2-inch.....	110	.50	Do.
6 dozen.....	Currycombs, tinned iron, 8 bars.....	198	1.05	San Francisco.
	Harness, double, complete, Concord hames:			
113 sets.....	With breeching.....	212	• 32.20	Do.
		241	27.40	Arlington, Cal.
83 sets.....	Without breeching.....	212	• 30.00	San Francisco.
		241	• 22.00	Arlington, Cal.
206 sets.....	Harness, plow, double, with backband and collars, Concord hames. (Specify price "with" and "without" hip strap.)	212	• 727.85 • 624.85	San Francisco.
	Knives:			
10½ dozen.....	Shoe, square point, paring, 4-inch blade.....	72	.74	Do.
4.....	Splitting, 10-inch, iron frame.....	72	8.00	Do.
	Leather:			
5 pounds.....	Dongola kid, glazed, full-size skins.....	72	1.18	Do.
195 pounds.....	Calfskin, to run 1½ to 2½ lbs. per side, medium thickness.....	167	1.15	Do.
5,000 pounds.....	Harness, oak-tanned, heads on, (15 to 23 lbs. per side).....	167	.33	Do.
5 pounds.....	Kip (about 5-lb. sides).....	72	.60	Do.
38 sides.....	Lace, to run from 7 to 10 lbs. per side, per lb.	178	.4998	Do.
	Leather, sole (18 to 25 lbs. per side):			
172 pounds.....	Hemlock.....	56	.285	Do.
5,625 pounds.....	Oak.....	228	.285	Do.
24 dozen papers.....	Needles, harness, assorted, 4, 5, and 6.....	72	.72	Do.

• 2½ inch.

• Awarded 88 sets with collar.

• 25 sets only.

• Awarded 78 sets, with collar.

• Five sets only.

• With hip straps.

• Without hip straps.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools.—Continued.

GLASS, OILS, AND PAINTS—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
245 gallons...	Coal tar, in 5-gallon tin cans, cased.....	33	\$0.18	San Francisco.
	Glass, window, single thick:			
2 boxes.....	9 x 12.....	84	2.03	St. Louis.
1 box.....	9 x 14.....	84	2.03	Do.
1 box.....	9 x 15.....	84	2.03	Do.
1 box.....	9 x 18.....	84	2.13	Do.
21 boxes.....	10 x 12.....	84	2.03	Do.
12 boxes.....	10 x 14.....	84	2.03	Do.
18 boxes.....	10 x 16.....	84	2.13	Do.
6 boxes.....	10 x 18.....	84	2.13	Do.
12 boxes.....	10 x 20.....	84	2.13	Do.
6 boxes.....	10 x 22.....	84	2.13	Do.
2 boxes.....	10 x 24.....	84	2.13	Do.
2 boxes.....	10 x 28.....	84	2.28	Do.
10 boxes.....	12 x 14.....	84	2.13	Do.
14 boxes.....	12 x 16.....	84	2.13	Do.
8 boxes.....	12 x 18.....	84	2.13	Do.
10 boxes.....	12 x 20.....	84	2.13	Do.
15 boxes.....	12 x 22.....	84	2.13	Do.
15 boxes.....	12 x 24.....	84	2.28	Do.
7 boxes.....	12 x 26.....	84	2.28	Do.
11 boxes.....	12 x 28.....	84	2.28	Do.
5 boxes.....	12 x 32.....	84	2.41	Do.
6 boxes.....	12 x 36.....	84	2.41	Do.
6 boxes.....	12 x 38.....	84	2.41	Do.
4 boxes.....	14 x 16.....	84	2.13	Do.
24 boxes.....	14 x 18.....	84	2.13	Do.
2 boxes.....	14 x 20.....	84	2.13	Do.
9 boxes.....	14 x 22.....	84	2.28	Do.
8 boxes.....	14 x 26.....	84	2.28	Do.
16 boxes.....	14 x 28.....	84	2.41	Do.
12 boxes.....	14 x 30.....	84	2.41	Do.
9 boxes.....	14 x 32.....	84	2.41	Do.
11 boxes.....	14 x 34.....	84	2.41	Do.
20 boxes.....	14 x 36.....	84	2.41	Do.
8 boxes.....	14 x 38.....	84	2.49	Do.
4 boxes.....	14 x 42.....	84	2.62	Do.
2 boxes.....	15 x 18.....	84	2.13	Do.
1 box.....	15 x 26.....	84	2.41	Do.
2 boxes.....	15 x 28.....	84	2.41	Do.
8 boxes.....	15 x 32.....	84	2.41	Do.
10 boxes.....	15 x 34.....	84	2.41	Do.
17 boxes.....	15 x 36.....	84	2.49	Do.
15 boxes.....	15 x 40.....	84	2.62	Do.
3 boxes.....	16 x 20.....	84	2.28	Do.
4 boxes.....	16 x 22.....	84	2.28	Do.
8 boxes.....	16 x 24.....	84	2.28	Do.
	Glass, window, double thick:			
4 boxes.....	16 x 36.....	84	3.86	Do.
6 boxes.....	16 x 44.....	84	3.95	Do.
1 box.....	18 x 18.....	84	3.46	Do.
1 box.....	18 x 20.....	84	3.46	Do.
5 boxes.....	18 x 24.....	84	3.76	Do.
5 boxes.....	18 x 30.....	84	3.76	Do.
1 box.....	18 x 36.....	84	3.86	Do.
3 boxes.....	20 x 24.....	84	3.76	Do.
4 boxes.....	20 x 26.....	84	3.76	Do.
4 boxes.....	20 x 48.....	84	4.26	Do.
10 boxes.....	24 x 28.....	84	3.86	Do.
13 boxes.....	24 x 32.....	84	3.95	Do.
7 boxes.....	24 x 34.....	84	3.95	Do.
17 boxes.....	24 x 36.....	84	3.95	E.J.
3 boxes.....	26 x 34.....	84	4.26	Do.
4 boxes.....	26 x 38.....	84	4.26	Do.
6 boxes.....	28 x 30.....	84	3.95	Do.
6 boxes.....	28 x 34.....	84	4.26	Do.
6 boxes.....	30 x 40.....	84	4.26	Do.
26.....	Glazier's sure-cut style diamond glass cutters.....	16	3.70	San Francisco.
153 papers.....	Glazier's points, 1-pound papers.....	94	.07	Do.
91 pounds.....	Glue:			
	Cabinetmaker's sheet.....	94	.095	Do.
150 quarts.....	Liquid, prepared in cans.....	122	.44	Do.
264 gallons...	Hard oil, light, in 1 and 5 gallon cans.....	94 {	a. 85	Do.
171 gallons...	Japan, house painter's, in 1-gallon cans.....	305 {	b. 77	Do.
			.49	

a In 1-gallon cans.

b In 5-gallon cans.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

GLASS, OILS, AND PAINTS—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
176 pounds...	Lampblack:			
230 pounds...	In 1-pound papers	94	\$0.0675	San Francisco.
	Pure, in oil, good strength, in 1, 2, and 5 pound cans.	305	.135	Do.
960 pounds...	Lead, in kegs, not over 100 pounds net weight:			
35,950 pounds...	Red, strictly pure, dry	94	.0691	Do.
205 pounds...	White, in oil, guaranteed strictly pure	94	.0641	Do.
	Oakum	66	.0248	Do.
	Oil, in 5-gallon cans, cased, or in 5-gallon flat-top jacketed cans:			
785 gallons...	Cylinder	33	.27	Do.
1,200 gallons...	Engine	33	.21	Do.
310 gallons...	Oil, lard, pure, in 5-gallon cans	33	.98	Do.
	Oil, linseed, strictly pure, in 5-gallon cans, cased, or in 5-gallon flat-top jacketed cans:			
3,120 gallons...	Boiled	33	.92	Do.
1,315 gallons...	Raw	33	.91	Do.
320 gallons...	Oil, lubricating, mineral, crude, in 5-gallon cans, cased, or in 5-gallon flat-top jacketed cans.	293	.1225	Do.
665 bottles...	Oil, sewing machine, in full 2-ounce bottles	177	.025	St. Louis.
PAINTS, ETC.				
4,575 pounds...	Chrome green, medium:			
346 pounds...	Dry	305	.057	San Francisco.
	In oil, for tinting, in 1, 2, and 5 pound cans	305	.135	Do.
87 pounds...	Chrome yellow, medium:			
264 pounds...	Dry	94	.07	Do.
58 pounds...	In oil, for tinting, in 1, 2, and 5 pound cans	102	.15	Do.
	English vermilion, light, in oil, for tinting, in 1-pound cans.	305	.58	Do.
354 pounds...	Ivory, drop black, in oil, for tinting, in 1, 2, and 5 pound cans.	305	.135	Do.
168 pounds...	Indian red, in japan, in 1, 2, and 5 pound cans	305	.165	Do.
	Ocher, French, yellow:			
710 pounds...	Dry	94	.0275	Do.
232 pounds...	In oil, for tinting, in 1, 2, and 5 pound cans	305	.085	Do.
177 pounds...	Prussian blue, in oil, for tinting, in 1, 2, and 5 pound cans.	305	.275	Do.
2,210 gallons...	Roof, red oxide, mineral, in 5-gallon flat-top jacketed cans.	33	.70	Do.
	Sienna, in oil, for tinting, in 1, 2, and 5 pound cans:			
267 pounds...	Burnt	305	.125	Do.
230 pounds...	Raw	94	.12	Do.
198 pounds...	Venetian red, in oil, for tinting, in 1, 2, and 5 pound cans.	305	.085	Do.
110 pounds...	Pitch	94	.05	Do.
	Putty:			
1,590 pounds...	In 5-pound cans	305	.03875	Do.
410 pounds...	In 10-pound cans	305	.03625	Do.
96 pounds...	Resin, common	94	.04	Do.
62 gallons...	Stain, oak, oil, in 1-gallon cans	305	.87	Do.
	Turpentine:			
400 gallons...	In 1-gallon cans	33	.84	Do.
725 gallons...	In 5-gallon cans	33	.75	Do.
295 pounds...	Umber, burnt, in oil, for tinting, in 1, 2, and 5 pound cans.	94	.11	Do.
175 gallons...	Varnish, coach, for interior use	305	{ a. 84 b. 77 }	Do.
	Varnish, wagon, heavy, durable body:			
56 gallons...	In 1-gallon cans	305	1.19	Do.
5 gallons...	In 5-gallon cans	305	1.14	Do.
	Additional articles:			
2 boxes	Glass, window, single thick, 15 by 38	84	2.49	St. Louis.

TIN AND STAMPED WARE.

356.....	Boilers, wash, XX tin, flat copper bottom, size 21 x 11 x 13 inches, iron drop handles, riveted, No. 8 heavy.	16	\$1.20	San Francisco.
680.....	Buckets, water, galvanized iron, heavy, full size, 14-quart.	16	.19	Do.
1 dozen	Candlesticks, planished tin or japanned, 6-inch ..	198	.48	Do.
* In 1-gallon cans. * In 5-gallon cans.				

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

TIN AND STAMPED WARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
6 $\frac{1}{2}$ dozens...	Cans: Kerosene, galvanized, corrugated sides, 1-gallon, common top.	45	\$1.68	San Francisco.
9.....	Milk, all steel, 32-quart, ironclad, retinned.	16	1.96	Do.
76.....	Coffee pots, full size, IX tin, solid spout, riveted ball and handle:	45	.21	Do.
32.....	2-quart.	45	.30	Do.
	4-quart.			
18.....	Coffee boilers, full size, solid spout, riveted ball and handle:	45	.37	Do.
27.....	6-quart, IX tin.	198	1.15	Do.
31.....	11-quart, XX tin.	71	.29	Do.
37.....	Coffee pots, 4-quart, gray enameled ware.	198	.44	Do.
67.....	Coffee boilers, 6-quart, gray enameled ware.	122	.36	Do.
2.....	Coffee mills, iron or block tin hopper box.	127	.38	Do.
7.....	Coffee mills, "Arcade No. 5," or equal, side, medium.			
26.....	Colanders, seamless, steel, 16 $\frac{1}{2}$ x 5 $\frac{1}{2}$ inches	127	.795	Do.
	Cups, full size, XX stamped tin, retinned, riveted handle:			
10 $\frac{1}{2}$ dozens...	Pint.	198	.64	Do.
2 $\frac{1}{2}$ dozens...	Quart.	198	1.30	Do.
19 dozen.....	Dippers, water, 1-quart, XX tin, full size, long handles, riveted.	198	1.32	Do.
125.....	Flour sifters.	122	.0825	Do.
15 dozen.....	Funnels, full size, stamped, fluted, retinned:			
2 $\frac{1}{2}$ dozen.....	1-pint.	127	.65	Do.
17 dozen.....	1-quart.	127	.95	Do.
	2-quart.	127	1.20	Do.
6.....	Measures, tin, XX, with full rim:			
14.....	Pint.	214	.14	St. Louis.
	Quart.	214	.175	Do.
264.....	Pails, water, heavy tin, retinned:			
173.....	10-quart.	214	.255	Do.
	14-quart.	214	.275	Do.
68.....	Pans, bake, sheet steel, No. 27:			
146.....	12 x 19 x 4 inches.	127	.625	San Francisco.
	15 x 20 x 4 inches, with two $\frac{3}{8}$ -inch oval runners.	37	.90	Do.
208.....	Pans, dish, full size, XX stamped tin, retinned.			
235.....	14-quart.	198	.39	Do.
39 dozen.....	17-quart.	198	.44	Do.
60.....	Pans, dust, japanned, heavy.	122	.98	Do.
	Pans, fry, "Acme" or equal, No. 4, wrought steel, polished, 8 inches across bottom.	122	.12	Do.
9 dozen.....	Pans, tin, full size, XX stamped tin, retinned:			
16 dozen.....	1-quart.	198	.90	Do.
19 dozen.....	2-quart.	198	1.15	Do.
23 dozen.....	4-quart.	198	1.65	Do.
16 dozen.....	6-quart.	198	2.00	Do.
	8-quart.	198	2.36	Do.
18 dozen.....	Plates, XX-stamped tin, 9-inch:			
46 dozen.....	Baking, deep, jelly.	45	.33	Do.
	Pie.	127	.2625	Do.
15.....	Scoops, grocer's, hand, XX-stamped tin, retinned:			
24.....	No. 20.	127	.13	Do.
	No. 40.	127	.19	Do.
7.....	Shears, tinner's, hand, "Wilcox's" or equal:			
10.....	No. 7.	16	1.30	Do.
	No. 9.	16	.80	Do.
9 pairs.....	Soldering irons, per pound:			
7 pairs.....	1 $\frac{1}{2}$ pounds each.	127	.225	Do.
7 dozen.....	2 pounds each.	127	.225	Do.
	Spoons, basting, forged steel, retinned.	122	.62	Do.
	Spoons, Wm. Rogers's A1 or equal, plain silver steel:			
174 dozen.....	Table.	16	.18	Do.
483 dozen.....	Tea.	16	.09	Do.
40.....	Strainers, XX tin:			
28.....	Milk, 12-inch.	127	.105	Do.
36.....	Soup, large size.	122	.39	Do.
	Teapots, heavy, planished tin, 4-pint, round, copper bottom.	127	.57	Do.
	Teapots, gray enameled ware:			
27.....	4-quart.	122	.365	Do.
34.....	6-quart.	122	.415	Do.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

TIN AND STAMPED WARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
2 boxes.....	Tin, sheet, IC, charcoal, bright: 10 x 14 inches.....	198	\$5.30	San Francisco.
5 boxes.....	14 x 20 inches.....	198	\$6.90	Do.
2 boxes.....	Tin, sheet, IX charcoal, bright: 10 x 14 inches.....	198	\$5.70	Do.
11 boxes.....	20 x 28 inches.....	198	\$7.95	Do.
7 boxes.....	14 x 20 inches.....	198	\$7.95	Do.
36 dozen.....	Wash basins, stamped tin, flat bottom, retinned, 11 inches.....	127	.81	Do.
69.....	Washtubs, galvanized-iron, inside measure, with corrugated bottom and heavy drop handles: 19½ inches in diameter by 10½ inches deep....	198	.39	Do.
140.....	21½ inches in diameter by 10½ inches deep....	198	.43	Do.
175.....	23½ inches in diameter by 10½ inches deep....	198	.49	Do.

STOVES, PIPE, HOLLOW WARE, ETC.

5.....	Caldrons, iron, portable, full jacket, with furnace: 48 gallons capacity.....	127	\$28.50	San Francisco.
2.....	75 gallons capacity.....	127	\$42.50	Do.
23.....	Coal hods, heavy, 18-inch, galvanized; riveted bottoms or pressed in.....	37	.79	Do.
273.....	Dampers, stovepipe, H. S. B. & Co. or equal: 6-inch.....	127	.055	Do.
18.....	7-inch.....	127	.073	Do.
281.....	Elbows, stovepipe, adjustable, corrugated, No. 26 iron: Size, 6 inches.....	127	.075	Do.
40.....	Size, 7 inches.....	127	.11	Do.
4.....	Ovens, Dutch, cast-iron, deep pattern: 10 inches diameter inside.....	127	.65	Do.
6.....	15 inches diameter inside.....	127	1.50	Do.
1,926 joints.....	Pipe, stove, patent, No. 26 iron; polished, edges curved, crimped, and formed; nested in bun- dles: 6-inch.....	198	.095	Do.
126 joints.....	7-inch.....	304	.1125	Do.
55 dozen.....	Pollak, stove.....	127	.60	Do.
5.....	Stoves, box, heating, wood: 24 inches long, to weigh not less than 110 pounds.....	127	\$5.40	Do.
3.....	27 inches long, to weigh not less than 130 pounds.....	127	\$6.22	Do.
12.....	32 inches long, to weigh not less than 145 pounds.....	127	\$9.10	Do.
4.....	37 inches long, to weigh not less than 190 pounds.....	127	\$11.00	Do.
9.....	Stoves, steel box, heating, wood: 22 inches long, not lighter than 22-gauge steel, with cast lining.....	304	\$4.85	Do.
5.....	25 inches long, not lighter than 22-gauge steel, with cast lining.....	304	\$5.90	Do.
21.....	28 inches long, not lighter than 22-gauge steel, with cast lining.....	304	\$6.65	Do.
17.....	Stoves, sheet steel, heating, coal: 16-inch body, cast lining, with hot-blast tube.....	127	\$9.35	Do.
2.....	17-inch body, cast lining, with hot-blast tube.....	127	\$11.70	Do.
1.....	Stoves, cooking, coal: 7-inch, oven not less than 16 x 16 x 10 inches; to weigh not less than 200 pounds.....	304	\$12.55	Do.
6.....	8-inch, ovens not less than 18 x 18 x 11 inches; to weigh not less than 240 pounds.....	304	\$15.50	Do.
3.....	9-inch, ovens not less than 19 x 19 x 12 inches; to weigh not less than 280 pounds.....	304	\$18.30	Do.
21.....	Stoves, cooking, wood: 6-inch, length of wood 18 inches; ovens not less than 14 x 16 x 11 inches; to weigh not less than 180 pounds.....	127	\$11.35	Do.
37.....	8-inch, length of wood 22 inches; ovens not less than 19 x 20 x 13 inches; to weigh not less than 270 pounds.....	127	\$16.90	Do.
16.....	9-inch, length of wood 22 inches; ovens not less than 21 x 22 x 14 inches; to weigh not less than 310 pounds.....	304	\$20.45	Do.

• 112 sheets per box.

• 86 sheets per box.

• Crated.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

STOVES, PIPES HOLLOW WARE, ETC.—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
23.....	Stoves, heating, coal: 14-inch cylinder; to weigh not less than 135 pounds.	127	• \$8.10	San Francisco.
4.....	16-inch cylinder; to weigh not less than 175 pounds.	127	• 10.75	Do.
5.....	Stoves, heating, wood, sheet iron, with outside rods: 32-inch.....	127	• 13.95	Do.
3.....	37-inch.....	127	• 21.00	Do.
4.....	Stoves, heating, combined coal and wood, 22 inches diameter, 24-inch heavy steel drum; to weigh not less than 285 pounds.	127	• 24.70	Do.
6.....	Stoves, coal, laundry, for heating 33 irons.....	127	• 18.50	Do.

HARDWARE.

1.....	Ads, c. s., house carpenter's, 4½-inch cut, square head.	198	\$0.94	San Francisco.
1.....	Anvils, wrought iron, steel face, per pound:			
1.....	100-pound.....	198	.105	Do.
2.....	140-pound.....	198	.105	Do.
1.....	200-pound.....	198	.105	Do.
2.....	Augers, nut, with extension lip: 1½-inch.....	198	.40	Do.
1.....	2-inch.....	198	.75	Do.
3.....	Augers, c. s., hollow, adjustable, to cut ½ to 1 inch.	198	2.84	Do.
96 dozen.....	Axes: Assorted, 3½ to 4½ lbs., Yankee pattern, inserted or overlaid steel.	16	5.90	Do.
45.....	C. s., hunter's, inserted or overlaid steel, handled, No. 2.	45	.47	Do.
560 pounds.....	Babbitt metal, medium quality.....	16	.10	Do.
24.....	Bells, hand, No. 8, polished, extra heavy.....	214	.46	St. Louis.
17.....	Bells, school, with fixtures for hanging: To weigh 240 to 260 pounds.....	294	14.25	San Francisco.
1.....	To weigh 400 to 425 pounds.....	92	37.50	Do.
12 feet.....	Belting leather, single: 1-inch.....	198	.07	Do.
12 feet.....	1½-inch.....	198	.11	Do.
410 feet.....	2-inch.....	198	.1325	Do.
20 feet.....	2½-inch.....	198	.165	Do.
210 feet.....	3-inch.....	198	.20	Do.
210 feet.....	4-inch.....	198	.265	Do.
20 feet.....	5-inch.....	198	.33	Do.
270 feet.....	6-inch.....	198	.40	Do.
80 feet.....	Belting, rubber, 3-ply, 4-inch.....	270	.116	Do.
60 feet.....	Belting, rubber, 4-ply: 8-inch.....	270	.287	Do.
100 feet.....	10-inch.....	270	.366	Do.
9.....	Bevels, sliding T, 10-inch, metal handle.....	214	.385	St. Louis.
6½ dozen.....	Bits, auger, c. s., Jennings, Irwin, or Ford pattern, extension lip: 1-inch.....	214	1.43	Do.
6½ dozen.....	1½-inch.....	214	1.43	Do.
4½ dozen.....	2-inch.....	214	1.43	Do.
4½ dozen.....	2½-inch.....	214	1.54	Do.
4½ dozen.....	3-inch.....	214	1.77	Do.
4½ dozen.....	3½-inch.....	214	1.94	Do.
3½ dozen.....	4-inch.....	214	2.12	Do.
2½ dozen.....	4½-inch.....	214	2.47	Do.
2½ dozen.....	5-inch.....	214	2.47	Do.
2½ dozen.....	5½-inch.....	214	2.84	Do.
2½ dozen.....	6-inch.....	214	2.84	St. Louis.
2 dozen.....	1-inch.....	214	3.18	Do.
6½ dozen.....	Bolts, door, wrought-iron barrel: 6-inch.....	214	.35	Do.
4½ dozen.....	8-inch.....	214	.84	Do.
700.....	Bolts, machine, per 100: ½ x 1.....	214	.326	Do.
900.....	¾ x 1½.....	214	.326	Do.
900.....	1 x 2.....	214	.343	Do.
700.....	1½ x 2½.....	214	.358	Do.

* Crated.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
	Bolts, machine, per 100—Continued.			
900.....	1/2 x 3.....	214	\$0.37	St. Louis.
600.....	1/2 x 3 1/2.....	214	.388	Do.
600.....	1/2 x 1.....	214	.384	Do.
700.....	1/2 x 1 1/2.....	214	.384	Do.
775.....	1/2 x 2.....	214	.40	Do.
600.....	1/2 x 2 1/2.....	214	.425	Do.
1,175.....	1/2 x 3.....	214	.45	Do.
550.....	1/2 x 3 1/2.....	214	.468	Do.
875.....	1/2 x 4.....	214	.495	Do.
400.....	1/2 x 4 1/2.....	214	.515	Do.
350.....	1/2 x 5.....	214	.534	Do.
975.....	1/2 x 2.....	214	.48	Do.
800.....	1/2 x 2 1/2.....	214	.515	Do.
1,000.....	1/2 x 3.....	214	.535	Do.
600.....	1/2 x 3 1/2.....	214	.575	Do.
900.....	1/2 x 4.....	214	.614	Do.
500.....	1/2 x 4 1/2.....	214	.846	Do.
500.....	1/2 x 5.....	214	.86	Do.
400.....	1/2 x 5 1/2.....	214	.92	Do.
650.....	1/2 x 6.....	214	.96	Do.
200.....	1/2 x 6 1/2.....	214	1.00	Do.
350.....	1/2 x 7.....	214	1.04	Do.
100.....	1/2 x 7 1/2.....	214	1.08	Do.
600.....	1/2 x 8.....	214	1.12	Do.
450.....	1/2 x 3.....	214	.85	Do.
800.....	1/2 x 3 1/2.....	214	.90	Do.
600.....	1/2 x 4.....	214	.95	Do.
400.....	1/2 x 4 1/2.....	214	1.00	Do.
500.....	1/2 x 5.....	214	1.05	Do.
800.....	1/2 x 6.....	214	1.15	Do.
300.....	1/2 x 7.....	214	1.25	Do.
750.....	1/2 x 3 1/2.....	214	1.16	Do.
850.....	1/2 x 4.....	214	1.25	Do.
350.....	1/2 x 4 1/2.....	214	1.29	Do.
350.....	1/2 x 5.....	214	1.41	Do.
200.....	1/2 x 5 1/2.....	214	1.43	Do.
1,600.....	1/2 x 6.....	214	1.49	Do.
350.....	1/2 x 7.....	214	1.62	Do.
600.....	1/2 x 8.....	214	1.75	Do.
350.....	1/2 x 9.....	214	1.88	Do.
350.....	1/2 x 10.....	214	2.01	Do.
75.....	Braces, ratchet, B. B. 10-inch sweep, nickel or rustless finish.	36	1.33	San Francisco.
	Butts, brass, middle:			
6 dozen pairs.	1 1/2-inch.....	36	.224	Do.
13 dozen pairs	2-inch.....	36	.347	Do.
15 dozen pairs	2 1/2-inch.....	36	.624	Do.
	Butts, loose pin, steel:			
19 dozen pairs	2 1/2 x 2 1/2 inches.....	36	.35	Do.
14 dozen pairs	3 x 2 1/2 inches.....	36	.47	Do.
19 dozen pairs	3 x 3 inches.....	36	.51	Do.
20 dozen pairs	3 1/2 x 3 1/2 inches.....	36	.75	Do.
15 dozen pairs	4 x 4 inches.....	36	.93	Do.
3 dozen pairs.	4 1/2 x 4 1/2 inches.....	36	1.17	Do.
	Calipers, spring, 6-inch, Yankee pattern:			
8.....	Outside.....	198	.57	Do.
2.....	Inside.....	198	.57	Do.
138.....	Catches, or turns, iron, cupboard, bronzed, metal knob, good quality, and heavy.	198	.075	Do.
	Chains:			
18 pairs.....	Trace, 43 inches long, with hook and swivel.....	16	.60	Do.
22.....	Well, 24 inches long, with hook and ring.....	198	.14	Do.
11 gross.....	Chalk, carpenter's, assorted colors.....	16	.80	Do.
16.....	Chisels, c. s., cold, octagon, 7/8 x 7 inches.....	45	.10	Do.
3.....	Chisels, c. s., socket, corner, 1-inch, handled.....	198	.90	Do.
	Chisels, c. s., socket, firmer, sharpened, leather-top handles:			
27.....	1-inch.....	198	.23	Do.
26.....	1-inch.....	198	.23	Do.
30.....	1-inch.....	198	.25	Do.
30.....	1-inch.....	198	.26	Do.
31.....	1-inch.....	198	.30	Do.
31.....	1 1/2-inch.....	198	.33	Do.
27.....	1 1/2-inch.....	198	.36	Do.
26.....	2-inch.....	198	.39	Do.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
	Chisels, c. s., socket, oval back, framing, sharpened and handled:			
3.....	1-inch.....	16	\$0.18	San Francisco.
8.....	1-inch.....	16	.18	Do.
3.....	1-inch.....	16	.19	Do.
4.....	1-inch.....	16	.20	Do.
4.....	1-inch.....	16	.22	Do.
1.....	1½-inch.....	16	.25	Do.
4.....	1½-inch.....	16	.26	Do.
1.....	2-inch.....	16	.30	Do.
	Clamps:			
18.....	Malleable, carriage, 10-inch.....	16	.52	Do.
7.....	Saw, swivel, 9-inch jaw.....	16	.73	Do.
11.....	Cleavers, butcher's, 10-inch.....	16	1.03	Do.
30 quires.....	Cloth, emery, assorted, per quire.....	198	.74	Do.
31,675 square feet.....	Cloth, wire, for screens, painted black, or galvanized finish.....	16	.0235	Do.
21.....	Cocks, brass, racking, to screw, loose key, ½-inch.....	198	.44	Do.
6.....	Corkscrews, wood handle, cut worm.....	71	.10	Do.
9.....	Cutters, bolt, for ½-inch.....	16	3.50	Do.
	Dividers, c. s., wing:			
4.....	6-inch.....	16	.13	Do.
3.....	10-inch.....	16	.24	Do.
3.....	Drills, blacksmith's, vertical.....	45	6.50	Do.
5.....	Drills, breast, 2 pairs of jaws, 2-speed.....	198	2.95	Do.
	Drills:			
24 sets.....	Bitstock, assorted, ⅜ to ¾ inch by 32ds.....	16	1.15	Do.
10 sets.....	Straight shank, jobber's, assorted, ⅜ to ¾ inch by 32ds.....	16	1.90	Do.
15 sets.....	Wood, boring, brace, assorted, ⅜ to ¾ inch by 32ds.....	16	1.25	Do.
24.....	Faucets, wood, cork-lined, best, No. 6.....	122	.065	Do.
	Files, flat, bastard:			
11 dozen.....	10-inch.....	45	1.40	Do.
22 dozen.....	12-inch.....	45	1.94	Do.
	Files, cabinet:			
3 dozen.....	12-inch.....	45	3.73	Do.
6 dozen.....	14-inch.....	45	5.96	Do.
	Files, half round, bastard:			
2½ dozen.....	10-inch.....	45	1.82	Do.
27 dozen.....	12-inch.....	45	2.36	Do.
	Files, mill, bastard, 1 round edge:			
26 dozen.....	8-inch.....	45	.96	Do.
23 dozen.....	10-inch.....	45	1.26	Do.
21 dozen.....	12-inch.....	45	1.68	Do.
26 dozen.....	14-inch.....	45	2.40	Do.
	Files, round, bastard:			
13 dozen.....	6-inch.....	45	.70	Do.
2½ dozen.....	8-inch.....	45	.86	Do.
2½ dozen.....	10-inch.....	45	1.12	Do.
7 dozen.....	12-inch.....	45	1.50	Do.
2 dozen.....	14-inch.....	45	2.14	Do.
	Files, double end, taper, with handles:			
27 dozen.....	7-inch.....	45	.70	Do.
22 dozen.....	8-inch.....	45	.78	Do.
15 dozen.....	9-inch.....	45	.88	Do.
18 dozen.....	10-inch.....	45	.98	Do.
147 pairs.....	Flatirons, 5 to 8 pounds, polished face, half-round wrought handles, per pound.....	45	.033	Do.
240 dozen.....	Forks, table, imitation stag handle, with bolster.....	214	.96	St. Louis.
16.....	Gates, molasses, No. 2.....	214	.10	Do.
	Gauges:			
5.....	Marking, brass-mounted.....	16	.25	San Francisco.
3.....	Mortise, screw slide.....	16	.34	Do.
8.....	Slitting, with handle.....	16	.45	Do.
4.....	Gluepots, No. 1, porcelain or tin lined.....	198	.40	Do.
	Gouge, c. s., socket, firmer, sharpened, leather-top handle:			
1.....	1-inch.....	198	.36	Do.
1.....	1-inch.....	198	.38	Do.
1.....	1-inch.....	198	.40	Do.
1.....	1-inch.....	198	.43	Do.
1.....	1-inch.....	198	.48	Do.
1.....	1-inch.....	198	.54	Do.
	Grindstones, unmounted, per pound:			
87.....	Weighting 50 pounds.....	45	.0212	Do.
29.....	Weighting 100 pounds.....	45	.0212	Do.
7.....	Weighting 150 pounds.....	45	.0212	Do.
1.....	Weighting 250 pounds.....	45	.03	Do.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools.—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
11 dozen.....	Handles, hammer:			
17 dozen.....	Blacksmith's, 18-inch.....	45	\$0.76	San Francisco.
	Claw, 13-inch.....	214	.43	St. Louis.
54 dozen.....	Handles:			
100.....	Hatchet, 15-inch.....	16	.60	San Francisco.
	Hammers, A. E., solid, c. s., forged, No. 14.....	198	.45	Do.
	Hammers, farrier's:			
24.....	Shoeing, c. s.....	198	.42	Do.
10.....	Turning, half-bright, assorted, 2 to 2½ pounds.....	198	1.30	Do.
	Hammers, machinist's, ball peen:			
31.....	1½-pound.....	36	.45	Do.
23.....	2½-pound.....	36	.50	Do.
	Hammers, riveting, solid, c. s.:			
5.....	1½-pound.....	198	.38	Do.
3.....	1½-pound.....	198	.47	Do.
3.....	1½-pound.....	198	.50	Do.
	Hammers, sledge, blacksmith's, solid, c. s., handled:			
3.....	2-pound.....	198	.60	Do.
4.....	3-pound.....	198	.65	Do.
	Hammers, sledge, blacksmith's, solid, c. s.:			
2.....	6-pound.....	198	.41	Do.
7.....	8-pound.....	198	.55	Do.
5.....	10-pound.....	198	.69	Do.
1.....	Hammer, tack, upholsterer's pattern, steel.....	16	.25	Do.
	Hatchets, c. s.:			
24.....	Broad, 6-inch cut, steel head, single bevel, handled.....	198	.80	Do.
12.....	Lathing, No. 1.....	198	.69	Do.
77.....	Shingling, No. 2.....	198	.42	Do.
	Hasps, hinge:			
30 dozen.....	6-inch.....	214	.335	St. Louis.
19 dozen.....	10-inch.....	214	.645	Do.
	Hinges, extra heavy, T:			
5 dozen pairs.....	8-inch.....	36	1.49	San Francisco.
6 dozen pairs.....	10-inch.....	36	2.21	Do.
3 dozen pairs.....	12-inch.....	36	3.20	Do.
	Hinges, heavy, strap:			
12 dozen pairs.....	8-inch.....	36	1.11	Do.
6½ dozen pairs.....	10-inch.....	36	1.69	Do.
7 dozen pairs.....	12-inch.....	36	2.59	Do.
	Hinges, light, strap:			
19 dozen pairs.....	8-inch.....	36	.50	Do.
6½ dozen pairs.....	8-inch.....	36	.71	Do.
4 dozen pairs.....	10-inch.....	36	.98	Do.
2 dozen pairs.....	12-inch.....	36	1.36	Do.
	Hinges, light, T:			
9 dozen pairs.....	8-inch.....	36	.36	Do.
5 dozen pairs.....	8-inch.....	36	.59	Do.
4 dozen pairs.....	10-inch.....	36	1.08	Do.
158 dozen.....	Hooks, hat and coat, schoolhouse pattern, heavy, japanned.....	36	.147	Do.
	Iron, band, per 100 pounds:			
350 pounds.....	x 1.....	198	3.04	Do.
550 pounds.....	x 1.....	198	2.74	Do.
500 pounds.....	x 1.....	198	2.64	Do.
550 pounds.....	x 1.....	198	2.64	Do.
800 pounds.....	x 2.....	198	2.64	Do.
800 pounds.....	x 2.....	198	2.54	Do.
	Iron, refined, per 100 pounds:			
870 pounds.....	x 1.....	198	2.64	Do.
1,195 pounds.....	x 1.....	198	2.34	Do.
600 pounds.....	x 1.....	198	2.34	Do.
600 pounds.....	x 2.....	198	2.34	Do.
200 pounds.....	x 2.....	198	2.34	Do.
200 pounds.....	x 2.....	198	2.34	Do.
300 pounds.....	x 2.....	198	2.34	Do.
400 pounds.....	x 2.....	198	2.34	Do.
300 pounds.....	x 2.....	198	2.34	Do.
100 pounds.....	x 2.....	198	2.34	Do.
200 pounds.....	x 3.....	198	2.34	Do.
600 pounds.....	x 3.....	198	2.54	Do.

* 1/4 x 3" to fill this item.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
	Iron, refined, per 100 pounds—Continued.			
1,060 pounds.	x 1	198	\$2.34	San Francisco.
850 pounds.	x 1	198	2.14	Do.
1,000 pounds.	x 1	198	2.14	Do.
650 pounds.	x 1	198	2.14	Do.
400 pounds.	x 2	198	2.14	Do.
400 pounds.	x 2	198	2.14	Do.
300 pounds.	x 2	198	2.14	Do.
300 pounds.	x 1	16	2.90	Do.
750 pounds.	x 1	16	2.50	Do.
400 pounds.	x 1	16	2.50	Do.
100 pounds.	x 1	16	2.90	Do.
400 pounds.	x 1	198	2.34	Do.
950 pounds.	x 1	198	2.14	Do.
400 pounds.	x 1	198	2.14	Do.
700 pounds.	x 2	198	2.14	Do.
1,000 pounds.	x 2	198	2.14	Do.
800 pounds.	x 2	198	2.14	Do.
900 pounds.	x 1	198	2.14	Do.
1,050 pounds.	x 2	198	2.14	Do.
200 pounds.	x 2	198	2.14	Do.
	Iron, refined, round, per 100 pounds:			
1,360 pounds.	1-inch.	198	2.84	Do.
2,300 pounds.	1-inch.	198	2.64	Do.
1,200 pounds.	1-inch.	198	2.54	Do.
2,950 pounds.	1-inch.	198	2.44	Do.
300 pounds.	1-inch.	198	2.44	Do.
2,100 pounds.	1-inch.	198	2.34	Do.
2,200 pounds.	1-inch.	198	2.24	Do.
700 pounds.	1-inch.	198	2.24	Do.
1,750 pounds.	1-inch.	198	2.14	Do.
400 pounds.	Iron, refined, sheet, No. 26, per 100 pounds.			
	Iron, refined, square, per 100 pounds:			
300 pounds.	1-inch.	198	2.64	Do.
950 pounds.	1-inch.	198	2.44	Do.
550 pounds.	1-inch.	198	2.34	Do.
350 pounds.	1-inch.	198	2.24	Do.
300 pounds.	1-inch.	198	2.14	Do.
	Knives:			
338 dozen.	Table, imitation stag handle, with bolster.	37	1.06	Do.
79.	Bread, thin blade.	127	.20	Do.
14 dozen.	Butcher, 8-inch, beech handle, without bolster, Wilson pattern or equal.	127	2.04	Do.
74 pairs.	Carving, and forks, forged, with bolster and guard, genuine stag handles, per pair.	127	.75	Do.
20.	Chopping, hollow iron handle, forged blade.	127	.08	Do.
	Knives, drawing, c.s., carpenter's, hollow-ground:			
12.	10-inch.	16	.38	Do.
2.	12-inch.	16	.48	Do.
	Knives:			
13.	Horsehoeing, assorted widths, stag handle.	198	.25	Do.
53.	Putty, with bolster.	36	.12	Do.
43.	Skinning, 6-inch, beech handle, without bolster.	37	.13	Do.
1 dozen.	Latches, thumb, heavy, all wrought.	45	1.00	Do.
32.	Levels, spirit, with plumb, 24 to 30 inch, adjustable.	198	.92	Do.
26 dozen.	Lock sets, 34-inch, mortise, jet knobs, bronzed-steel combined rose and escutcheon, brass bolts and face, 2 steel keys.	214	4.00	St. Louis.
	Locks, spring, pad, iron or brass, 3-tumbler, 2 keys each, assorted combinations on each shipping order:			
35 dozen.	Suitable for outside use.	36	2.85	San Francisco.
8 dozen.	Suitable for inside use.	16	1.00	Do.
1 dozen.	Locks, sash, heavy, bronzed, Fitch pattern.	198	.50	Do.
18.	Mallets, carpenter's, hickory, round, 6 x 4 inches.	198	.27	Do.
22.	Measures, tape, 75-foot, bent leather case.	214	.79	St. Louis.
24 M.	Nails, gilt, upholsterer's, size 43, per M.	127	.585	San Francisco.
	Nails, horseshoe, per 100 pounds:			
615 pounds.	No. 6.	43	7.50	Do.
415 pounds.	No. 7.	43	7.50	Do.
130 pounds.	No. 8.	43	7.50	Do.
25 pounds.	Nails, oxshoe, No. 5, per 100 pounds.	43	7.50	Do.
14.	Nippers, shoeing, Hellar's or equal.	45	1.35	Do.
135.	Oilers, bronzed steel, No. 14, 5-inch spout.	45	.17	Do.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
45.....	Oilstones, Washita, composition, or carborundum.	16	\$0.24	San Francisco.
20 pounds.....	Packing, hemp, 1-inch, square.....	104	.16	Do.
	Packing, C. I. rubber:			
45 pounds.....	1-inch.....	45	.12	Do.
165 pounds.....	1-inch.....	45	.115	Do.
120 pounds.....	1-inch.....	45	.115	Do.
	Packing, Rainbow style:			
200 pounds.....	1-inch.....	104	.34	Do.
370 pounds.....	1-inch.....	104	.34	Do.
205 quires.....	Paper, sand (assorted) per quire.....	16	.19	Do.
69 dozen.....	Pencils, carpenter's, 7-inch.....	45	.37	Do.
26.....	Pinchers, blacksmith's, shoeing.....	198	1.38	Do.
	Planes:			
20.....	Block, 6-inch, knuckle joint, No. 18.....	214	.615	St. Louis.
8.....	Fore, adjustable, wood bottoms, No. 20.....	36	1.35	San Francisco.
	Planes, wood, hollow and round, c. s.:			
8 pairs.....	1-inch.....	198	.98	Do.
8 pairs.....	1 1/2-inch.....	198	.98	Do.
8 pairs.....	1 1/2-inch.....	198	1.14	Do.
	Planes, adjustable, wood bottoms:			
29.....	Jack, No. 27.....	36	1.20	Do.
17.....	Jointer's, No. 33.....	36	1.64	Do.
	Planes, match, iron, Stanley pattern:			
9 pairs.....	1-inch, No. 49.....	198	1.98	Do.
9 pairs.....	1-inch, No. 48.....	214	1.435	St. Louis.
3.....	Planes, plow, embracing beading and center-beading plane, rabbet and fillister, dado, plow, matching and slitting plane, No. 45.....	36	5.70	San Francisco.
5.....	Plane, dado, iron, Stanley pattern, 1-inch, No. 39.....	198	1.20	Do.
	Planes, rabbet, iron, Stanley pattern:			
3.....	1-inch, No. 192.....	198	1.00	Do.
2.....	1 1/2-inch, No. 190.....	198	1.00	Do.
20.....	Planes, smooth, adjustable, wood bottoms, No. 35, Stanley pattern.....	214	.925	St. Louis.
26.....	Pliers, side-cutting, 7-inch, c. s., heavy.....	36	.53	San Francisco.
3.....	Pliers, end-cutting, nippers, reversible blade, 10-inch, c. s., heavy.....	45	1.10	Do.
	Punches:			
3 dozen.....	Saddler's, c. s., round, to drive, assorted, Nos. 2, 3, 4, 5, and 6.....	198	.66	Do.
1 1/2 dozen.....	Conductor's, heavy, assorted shapes of holes.....	214	2.20	St. Louis.
	Rasps, horse, floor:			
24.....	12-inch.....	16	.28	San Francisco.
29.....	14-inch.....	16	.40	Do.
85.....	16-inch.....	16	.55	Do.
	Rasps, wood, flat:			
41.....	12-inch.....	45	.30	Do.
36.....	14-inch.....	45	.40	Do.
	Rasps, wood, half round:			
27.....	12-inch.....	45	.32	Do.
84.....	14-inch.....	45	.42	Do.
	Rivet sets, polished and blued:			
12.....	No. 2.....	45	.35	Do.
10.....	No. 3.....	45	.30	Do.
12.....	No. 7.....	45	.25	Do.
	Rivets and burrs, copper, in 1-pound boxes:			
8 pounds.....	1-inch, No. 8.....	214	.218	St. Louis.
7 pounds.....	1-inch, No. 12.....	214	.242	Do.
20 pounds.....	1-inch, No. 8.....	214	.218	Do.
12 pounds.....	1-inch, No. 12.....	214	.242	Do.
42 pounds.....	1-inch, No. 8.....	214	.218	Do.
20 pounds.....	1-inch, No. 12.....	214	.242	Do.
27 pounds.....	1-inch, No. 8.....	214	.218	Do.
15 pounds.....	1-inch, No. 12.....	214	.242	Do.
19 pounds.....	1-inch, No. 8.....	214	.218	Do.
8 pounds.....	1-inch, No. 12.....	214	.242	Do.
	Rivets, tinned iron, in packages of 1,000:			
4 M.....	10-ounce.....	214	.058	Do.
5 M.....	12-ounce.....	214	.066	Do.
7 M.....	1-pound.....	214	.079	Do.
6 M.....	1 1/2-pound.....	214	.10	Do.
13 M.....	2-pound.....	214	.135	Do.
134.....	Rules, boxwood, 2-foot, 4-fold, full brass bound.....	36	.30	San Francisco.
	Saw-sets, Morrill pattern, for—			
2.....	Crosscut saws.....	214	.40	St. Louis.
12.....	Handsaws.....	198	.65	San Francisco.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
48.....	Saws:			
12.....	Compass, 12-inch.....	198	\$0.28	San Francisco.
31.....	Back, 12-inch, blued back.....	214	.60	St. Louis.
	Buck, complete, 30-inch blade, painted frames.....	214	.33	Do.
4.....	Saws, circular, 26-inch:			
1.....	Crosscut.....	198	9.80	San Francisco.
2.....	Rip.....	198	9.80	Do.
	30-inch, crosscut.....	198	12.40	Do.
94.....	Saws:			
14.....	Hand, 26-inch, hollow back, 6 to 10 points to the inch.....	198	1.29	Do.
30.....	Meat, butcher's bow, 20-inch.....	198	.88	Do.
3.....	Rip, 26-inch, 4 $\frac{1}{2}$ and 5 points.....	198	1.47	Do.
30.....	Scroll, frames and 1 dozen blades each.....	16	1.10	Do.
3.....	Scales:			
2.....	Butcher's, dial face, spring balance, square pan, 30-pound, by ounces.....	198	2.44	Do.
26 dozen.....	Hay and cattle, 6-ton, standard platform.....	98	60.00	Do.
	Platform, 1,000-pound, drop lever, on wheels.....	98	26.50	Do.
	Scissors, ladies', 6-inch, c. s., full size.....	37	1.45	Do.
35.....	Screw-drivers:			
32.....	6-inch steel blade, running through handle.....	214	.162	St. Louis.
21.....	8-inch steel blade, running through handle.....	214	.215	Do.
21.....	10-inch steel blade, running through handle.....	214	.245	Do.
21.....	Screws, wrought-iron, bench, 1 $\frac{1}{2}$ -inch.....	45	.45	San Francisco.
24 gross.....	Screws, flat-head, bright:			
21 gross.....	1-inch, No. 4.....	214	.067	St. Louis.
24 gross.....	1-inch, No. 5.....	214	.065	Do.
23 gross.....	1-inch, No. 6.....	214	.069	Do.
54 gross.....	1-inch, No. 7.....	214	.07	Do.
59 gross.....	1-inch, No. 8.....	214	.079	Do.
54 gross.....	1-inch, No. 8.....	214	.084	Do.
67 gross.....	1-inch, No. 8.....	214	.087	Do.
93 gross.....	1-inch, No. 9.....	214	.0932	Do.
76 gross.....	1-inch, No. 9.....	214	.096	Do.
65 gross.....	1-inch, No. 10.....	214	.106	Do.
48 gross.....	1 $\frac{1}{2}$ -inch, No. 10.....	214	.114	Do.
53 gross.....	1 $\frac{1}{2}$ -inch, No. 11.....	214	.122	Do.
33 gross.....	1 $\frac{1}{2}$ -inch, No. 11.....	214	.13	Do.
49 gross.....	1 $\frac{1}{2}$ -inch, No. 12.....	214	.147	Do.
7 gross.....	1 $\frac{1}{2}$ -inch, No. 12.....	214	.15	Do.
23 gross.....	1 $\frac{1}{2}$ -inch, No. 13.....	214	.17	Do.
13 gross.....	2-inch, No. 13.....	214	.19	Do.
7 gross.....	2-inch, No. 14.....	214	.22	Do.
1 gross.....	2 $\frac{1}{2}$ -inch, No. 14.....	214	.23	Do.
10 gross.....	2 $\frac{1}{2}$ -inch, No. 15.....	214	.268	Do.
1 gross.....	2 $\frac{1}{2}$ -inch, No. 14.....	214	.255	Do.
2 gross.....	2 $\frac{1}{2}$ -inch, No. 15.....	214	.288	Do.
4 gross.....	3-inch, No. 16.....	214	.368	Do.
	3-inch, No. 18.....	214	.48	Do.
9 dozen.....	Shears, c. s., japanned handle, straight, trimmers:			
9 dozen.....	8-inch.....	214	3.50	Do.
	10-inch.....	214	5.65	Do.
700 pounds.....	Shoes, horse, light, assorted, front and hind, per 100 pounds:			
1,060 pounds.....	No. 0.....	198	5.23	San Francisco.
2,150 pounds.....	No. 1.....	198	5.23	Do.
2,380 pounds.....	No. 2.....	198	4.98	Do.
920 pounds.....	No. 3.....	198	4.98	Do.
500 pounds.....	No. 4.....	198	4.98	Do.
200 pounds.....	No. 5.....	198	4.98	Do.
	No. 6.....	198	4.98	Do.
350 pounds.....	Shoes, mule, per 100 pounds:			
200 pounds.....	No. 3.....	198	4.98	Do.
19 dozen.....	No. 4.....	198	4.98	Do.
17 dozen.....	Shovels, fire, hand, long-handle, heavy.....	127	.85	Do.
	Springs, door, spiral, heavy, 13-inch.....	45	1.35	Do.
54.....	Squares:			
14.....	Framing, steel, 2 inches wide, with rafter scale.....	16	.65	Do.
26.....	Try, 4 $\frac{1}{2}$ -inch.....	36	.14	Do.
12.....	Try and miter, 7 $\frac{1}{2}$ -inch.....	36	.29	Do.
22 dozen.....	Try, 10-inch.....	16	.30	Do.
	Staples, wrought iron, 3 inches long.....	45	.038	Do.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
530 pounds.	Steel, cast, octagon:			
180 pounds.	1-inch.	16	\$0.072	San Francisco.
350 pounds.	1-inch.	16	.067	Do.
435 pounds.	1-inch.	16	.062	Do.
485 pounds.	1-inch.	16	.062	Do.
400 pounds.	1-inch.	16	.062	Do.
	1-inch.	16	.062	Do.
200 pounds.	Steel, plow:			
150 pounds.	x 3 inches.	198	.027	Do.
200 pounds.	x 4 inches.	198	.027	Do.
200 pounds.	x 5 inches.	198	.027	Do.
200 pounds.	x 6 inches.	198	.027	Do.
50 pounds.	Steel, spring:			
250 pounds.	x 1 inch.	198	.038	Do.
200 pounds.	x 1 1/2 inches.	198	.036	Do.
150 pounds.	x 1 1/2 inches.	198	.036	Do.
200 pounds.	x 1 1/2 inches.	198	.036	Do.
28 pounds.	x 2 inches.	198	.034	Do.
	Steels, butcher's, 12-inch, stag handle, with swivel.	127	.625	Do.
	Thermometers:			
136.	Mercurial.	198	.16	Do.
33.	Spirit.	37	.42	Do.
5.	Trowels:			
11.	Brick, 10 1/4-inch.	16	.79	Do.
3.	Plastering, 10 1/4-inch.	36	.75	Do.
	Tuyeres (twyer), iron, adjustable pattern, single, heavy, with cleaning drop.	198	1.75	Do.
4.	Vices, square slide, 4-inch jaw.	16	7.70	Do.
2,225 pounds.	Waste, cotton, white.	293	.095	Do.
77.	Wedges, wood chopper's, solid steel, per pound:			
29.	6-pound.	198	.040	Do.
	6-pound.	198	.040	Do.
330 pounds.	Wire, annealed, blued:			
61 pounds.	No. 16.	127	.0475	Do.
35 pounds.	No. 20.	127	.0575	Do.
	No. 24.	127	.060	Do.
200 pounds.	Wire, bright, iron:			
100 pounds.	No. 8.	127	.04	Do.
200 pounds.	No. 10.	127	.04	Do.
50 pounds.	No. 11.	127	.042	Do.
100 pounds.	No. 12.	127	.0425	Do.
150 pounds.	No. 14.	127	.045	Do.
34,600 pounds.	Wire, 2-point barbed, galvanized, main wires not larger than 12 1/2 gauge; barbs not larger than 18 1/2 gauge:			
	For hog fence; space between barbs not to exceed 3 inches.	214	a. 02285	Chicago.
51,600 pounds.	For cattle fence; space between barbs not to exceed 5 inches.	214	a. 02285	Do.
30.	Wire-fence stretchers.	45	.50	San Francisco.
	Wrenches, Coe's pattern, solid handle, screw, black:			
82.	8-inch.	214	.31	St. Louis.
47.	10-inch.	214	.375	Do.
39.	12-inch.	214	.44	Do.
24.	15-inch.	214	.77	Do.
200 feet.	Additional articles:			
	Beltting, leather, single, 8-inch.	230	.676	San Francisco.
25 pounds.	Plumber's and steam and gas fitter's tools, fittings, and supplies:			
	Cement, gas fitter's, in 5-pound packages.	66	.0648	Do.
8.	Cutters, pipe, 3-wheel—			
3.	To cut 1 to 1 inch.	127	.63	Do.
5.	To cut 1 to 2 inches.	127	.84	Do.
	Furnaces, blast, gasoline, combination, hot blast, complete, with melting pot.	45	4.60	Do.
1.	Ladle, wrought, double lip—			
3.	4-inch.	16	.20	Do.
	6-inch.	16	.27	Do.
8.	Pliers, gas, forged—			
10.	6-inch.	45	.18	Do.
	12-inch.	45	.35	Do.

a "Glidden" American Steel and Wire Co.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
	Plumbers' and steam and gas fitters' tools, fittings, and supplies—continued			
	Ratchets, sleeve—			
2	Handle 10 inches long	16	\$4.00	San Francisco.
2	Handle 16 inches long	45	6.25	Do.
	Reamers, pipe—			
3	1-inch	66	.24	Do.
1	1-inch	66	.33	Do.
2	1-inch	66	.40	Do.
3	1½-inch	66	.48	Do.
3	1½-inch	66	.60	Do.
3	2-inch	66	.81	Do.
	Stocks and dies, pipe, adjustable—			
4 sets	1 to 1 inch	16	3.00	Do.
4 sets	1 to 2 inches	45	5.56	Do.
	Taps, pipe—			
3	1-inch	66	.24	Do.
3	1-inch	66	.33	Do.
3	1-inch	66	.40	Do.
3	1½-inch	66	.48	Do.
3	1½-inch	66	.60	Do.
3	2-inch	66	.80	Do.
5	2-inch	66	.81	Do.
	Vises, pipe, malleable iron, hinged, to hold 1 to 2 inch pipe.	198	1.29	Do.
	Wrenches, pipe, Stillson pattern—			
28	10-inch	214	.50	St. Louis.
36	18-inch	214	.987	Do.
	Pipe fittings:			
	Bibbs, Fuller pattern, lever handle, plain, finished, pipe thread—			
24	1-inch	66	.36	San Francisco.
57	1-inch	66	.47	Do.
30	1-inch	264	1.20	Do.
	Ribbs, compression, plain, finished, pipe thread—			
254	1-inch	198	.26	Do.
388	1-inch	198	.61	Do.
52	1-inch	198	.92	Do.
	Bushings, malleable iron—			
272	1 x 1 inch	45	.0135	Do.
392	1 x 1 inch	45	.0162	Do.
277	1 x 1½ inches	45	.0189	Do.
196	1½ x 1½ inches	45	.0248	Do.
209	1½ x 2 inches	45	.0378	Do.
	Caps, malleable iron, black—			
67	1-inch	45	.0137	Do.
85	1-inch	45	.0225	Do.
85	1-inch	45	.0287	Do.
88	1½-inch	45	.0337	Do.
61	1½-inch	45	.0412	Do.
67	2-inch	45	.055	Do.
	Caps, malleable iron, galvanized—			
24	1-inch	45	.0188	Do.
33	1-inch	45	.0325	Do.
36	1-inch	45	.0413	Do.
6	1½-inch	45	.0525	Do.
6	1½-inch	45	.0875	Do.
12	2-inch	45	.0875	Do.
	Couplings, boiler, with unions, malleable iron, straight—			
36	1 x 1 x 1 inch	45	.12	Do.
60	1 x 1 x 1 inch	45	.14	Do.
60	1 x 1 x 1 inch	45	.14	Do.
	Couplings, wrought iron, black—			
22	1-inch	66	.018	Do.
42	1-inch	66	.026	Do.
52	1-inch	66	.034	Do.
34	1½-inch	66	.044	Do.
34	1½-inch	66	.055	Do.
28	2-inch	66	.074	Do.
	Couplings, wrought iron, galvanized—			
121	1-inch	45	.025	Do.
119	1-inch	45	.033	Do.
105	1-inch	45	.045	Do.
86	1½-inch	45	.062	Do.
76	1½-inch	45	.08	Do.
79	2-inch	45	.10	Do.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
	Pipe fittings—Continued			
	Couplings, R. & L., malleable iron, black—			
24.....	1-inch.....	66	\$0.038	San Francisco.
18.....	1-inch.....	66	.0395	Do.
6.....	1½-inch.....	66	.0604	Do.
6.....	1½-inch.....	66	.0735	Do.
6.....	2-inch.....	66	.104	Do.
	Couplings, R. & L., malleable iron, galvanized—			
24.....	1-inch.....	66	.038	Do.
12.....	1-inch.....	66	.053	Do.
24.....	1-inch.....	66	.063	Do.
15.....	1½-inch.....	66	.0799	Do.
12.....	1½-inch.....	66	.1165	Do.
15.....	2-inch.....	66	.1645	Do.
	Crosses, malleable iron, galvanized—			
12.....	1-inch.....	66	.048	Do.
12.....	1-inch.....	66	.075	Do.
12.....	1-inch.....	66	.1198	Do.
6.....	1½-inch.....	66	.1319	Do.
6.....	1½-inch.....	66	.1892	Do.
6.....	2-inch.....	66	.293	Do.
	Elbows, malleable iron, black—			
170.....	1-inch.....	66	.0226	Do.
222.....	1-inch.....	66	.0199	Do.
179.....	1-inch.....	66	.0343	Do.
94.....	1½-inch.....	45	.055	Do.
109.....	1½-inch.....	45	.0763	Do.
106.....	2-inch.....	45	.125	Do.
	Elbows, malleable iron, galvanized—			
234.....	1-inch.....	45	.03	Do.
247.....	1-inch.....	66	.0318	Do.
202.....	1-inch.....	66	.0543	Do.
113.....	1½-inch.....	45	.0875	Do.
110.....	1½-inch.....	45	.125	Do.
101.....	2-inch.....	45	.1975	Do.
	Elbows, boiler, with unions, malleable iron, bent—			
32.....	1 x 1 x 1 inch.....	45	.12	Do.
56.....	1 x 1 x 1 inch.....	45	.14	Do.
56.....	1 x 1 x 1 inch.....	45	.14	Do.
	Elbows, R. & L., malleable iron, galvanized—			
31.....	1-inch.....	66	.0627	Do.
31.....	1-inch.....	66	.0483	Do.
31.....	1-inch.....	66	.0626	Do.
31.....	1½-inch.....	66	.0999	Do.
31.....	1½-inch.....	66	.1295	Do.
31.....	2-inch.....	66	.2085	Do.
	Elbows, side outlet, malleable iron, black—			
5.....	1-inch.....	66	.0274	Do.
5.....	1-inch.....	66	.0429	Do.
5.....	1-inch.....	66	.0728	Do.
5.....	1½-inch.....	66	.1159	Do.
5.....	1½-inch.....	66	.1709	Do.
5.....	2-inch.....	66	.2559	Do.
	Elbows, side outlet, malleable iron, galvanized			
8.....	1-inch.....	66	.0389	Do.
14.....	1-inch.....	66	.0619	Do.
14.....	1-inch.....	66	.0978	Do.
8.....	1½-inch.....	66	.1624	Do.
14.....	1½-inch.....	66	.2393	Do.
18.....	2-inch.....	66	.3585	Do.
	Gas service cocks, brass, female—			
17.....	1-inch.....	66	.256	Do.
11.....	1-inch.....	66	.33	Do.
11.....	1½-inch.....	66	.495	Do.
	Nipples, shoulder, wrought iron, black—			
120.....	1-inch.....	127	.0085	Do.
223.....	1-inch.....	127	.0102	Do.
202.....	1-inch.....	127	.0136	Do.
78.....	1½-inch.....	127	.0187	Do.
101.....	1½-inch.....	127	.0221	Do.
154.....	2-inch.....	127	.0306	Do.
	Nipples, shoulder, wrought iron, galvanized—			
177.....	1-inch.....	127	.0102	Do.
159.....	1-inch.....	127	.0136	Do.
161.....	1-inch.....	127	.0187	Do.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools.—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
	Pipe fittings—Continued.			
	Nipples, shoulder, wrought iron, galvanized—Continued.			
136.....	1½-inch.....	127	\$0.0280	San Francisco.
142.....	1½-inch.....	127	.0357	Do.
126.....	2-inch.....	127	.0450	Do.
	Pipe, wrought iron, black—			
700 feet.....	1-inch.....	45	.0255	Do.
900 feet.....	1-inch.....	45	.031	Do.
1,000 feet.....	1-inch.....	45	.0435	Do.
600 feet.....	1½-inch.....	45	.059	Do.
750 feet.....	1½-inch.....	45	.071	Do.
1,150 feet.....	2-inch.....	45	.095	Do.
	Pipe, wrought iron, galvanized—			
2,000 feet.....	1-inch.....	45	.0355	Do.
3,700 feet.....	1-inch.....	45	.0415	Do.
4,200 feet.....	1-inch.....	45	.061	Do.
1,650 feet.....	1½-inch.....	45	.0615	Do.
1,550 feet.....	1½-inch.....	45	.098	Do.
4,850 feet.....	2-inch.....	45	.1305	Do.
	Pipe, lead, per pound—			
50 feet.....	1-inch.....	66	.0750	Do.
15 feet.....	1-inch.....	66	.0750	Do.
100 feet.....	1-inch.....	66	.0890	Do.
150 feet.....	1½-inch.....	66	.0899	Do.
110 feet.....	1½-inch.....	66	.0899	Do.
65 feet.....	2-inch.....	66	.0740	Do.
	Plugs, cast iron, black—			
97.....	1-inch.....	66	.0054	Do.
109.....	1-inch.....	66	.0081	Do.
126.....	1-inch.....	66	.0106	Do.
85.....	1½-inch.....	66	.0129	Do.
97.....	1½-inch.....	66	.0186	Do.
73.....	2-inch.....	66	.0262	Do.
	Plugs, cast iron, galvanized—			
131.....	1-inch.....	66	.0108	Do.
126.....	1-inch.....	66	.0159	Do.
131.....	1-inch.....	66	.0209	Do.
119.....	1½-inch.....	66	.0284	Do.
107.....	1½-inch.....	66	.0369	Do.
86.....	2-inch.....	66	.0528	Do.
	Reducers, malleable iron, black—			
73.....	½ x ¾ inch.....	66	.0212	Do.
92.....	½ x 1 inch.....	66	.0401	Do.
86.....	1 x 1½ inches.....	66	.0379	Do.
50.....	1½ x 1½ inches.....	66	.0537	Do.
47.....	1½ x 2 inches.....	66	.0728	Do.
	Reducers, malleable iron, galvanized—			
82.....	½ x ¾ inch.....	66	.0290	Do.
99.....	½ x 1 inch.....	66	.0564	Do.
76.....	1 x 1½ inches.....	66	.0609	Do.
61.....	1½ x 1½ inches.....	66	.0848	Do.
74.....	1½ x 2 inches.....	66	.1140	Do.
	Stopcocks, brass, steam—			
6.....	1-inch.....	45	.42	Do.
13.....	1-inch.....	45	.58	Do.
12 dozen.....	Straps, tinned, for ½, ¾, 1, 1½, 1¾, and 2 inch pipe, per pound.	45	.08	Do.
	Tees, malleable iron, black—			
42.....	1-inch.....	45	.03	Do.
48.....	1-inch.....	45	.03	Do.
48.....	1-inch.....	45	.0438	Do.
42.....	1½-inch.....	45	.076	Do.
48.....	1½-inch.....	45	.098	Do.
76.....	2-inch.....	45	.15	Do.
	Tees, malleable iron, galvanized—			
149.....	1-inch.....	45	.042	Do.
161.....	1-inch.....	45	.045	Do.
164.....	1-inch.....	45	.07	Do.
105.....	1½-inch.....	45	.119	Do.
99.....	1½-inch.....	45	.167	Do.
98.....	2-inch.....	45	.232	Do.
	Tees, cross, malleable iron, galvanized—			
24.....	1-inch.....	45	.054	Do.
24.....	1-inch.....	45	.09	Do.
34.....	1-inch.....	45	.128	Do.
12.....	1½-inch.....	45	.168	Do.
17.....	1½-inch.....	45	.186	Do.
17.....	2-inch.....	45	.318	Do.

Contracts awarded under advertisement of March 7, 1910, for supplies, etc., for the Pacific coast agencies and schools—Continued.

HARDWARE—Continued.

Awards.	Article.	Contract No.	Unit price.	Point of delivery.
Pipe fittings—Continued.				
Unions, malleable iron, black—				
73.....	1-inch.....	198	\$0.059	San Francisco.
79.....	1-inch.....	198	.062	Do.
94.....	1-inch.....	198	.089	Do.
67.....	1½-inch.....	198	.106	Do.
67.....	1½-inch.....	198	.133	Do.
74.....	2-inch.....	198	.202	Do.
Unions, malleable iron, galvanized—				
158.....	1-inch.....	16	.089	Do.
184.....	1-inch.....	16	.10	Do.
152.....	1-inch.....	16	.13	Do.
123.....	1½-inch.....	16	.18	Do.
119.....	1½-inch.....	16	.24	Do.
123.....	2-inch.....	16	.32	Do.
Valves, gate, high pressure—				
67.....	1-inch.....	264	.89	Do.
58.....	1-inch.....	264	.625	Do.
58.....	1-inch.....	264	.75	Do.
63.....	1½-inch.....	264	1.05	Do.
52.....	1½-inch.....	264	1.50	Do.
57.....	2-inch.....	264	2.25	Do.
Valves, globe, high pressure—				
84.....	1-inch.....	45	.35	Do.
98.....	1-inch.....	45	.44	Do.
85.....	1-inch.....	45	.62	Do.
47.....	1½-inch.....	45	.89	Do.
62.....	1½-inch.....	45	1.23	Do.
46.....	2-inch.....	45	1.86	Do.
Additional articles:				
Valves, globe, angle, high pressure—				
6.....	1-inch.....	127	.64	Do.
6.....	1-inch.....	127	.83	Do.
6.....	1-inch.....	127	1.12	Do.
6.....	1½-inch.....	127	1.60	Do.
6.....	1½-inch.....	127	2.20	Do.
Hose goods:				
195.....	Couplings, hose, ½-inch, cast brass.....	45	.06	Do.
7 dozen.....	Hose clamps, for ½-inch hose, brass.....	104	.23	Do.
9,000 feet.....	Hose, rubber, garden, ½-inch, in lengths of 50 feet, coupled.....	45	.085	Do.
Hose, cotton, rubber-lined, in lengths, of 50 feet, coupled—				
400 feet.....	1½-inch.....	89	.20	Do.
600 feet.....	2-inch.....	89	.24	Do.
1,500 feet.....	Hose, cotton, rubber-lined, 2½-inch, double jacket, in lengths of 50 feet, coupled.....	239	.60	Do.
35.....	Nozzles, hose, screw, combination, ½-inch.....	104	.20	Do.
Nozzles, hose, screw—				
2.....	1½-inch.....	45	.64	Do.
3.....	2-inch.....	104	.95	Do.
4.....	2½-inch.....	104	1.90	Do.

Contracts awarded under advertisement of April 1, 1910, for coal.

Awards.	Point of delivery.	Contract No.	Awarded price per ton.
Tons.			
10.....	Bay Mills School, Mich., Wilkes-Barre, Pa., hard; nut.....	203	\$3.50
50.....	For Blackfeet Agency and schools, Mont. (f. o. b. cars Browning, Mont.), soft, Carney screened lump:	238	6.00
300.....	Agency.....		
50.....	School.....		
50.....	Day school.....	211	5.85
60.....	For Cantonment School, etc., Okla. (f. o. b. cars Canton, Okla.), soft, "McAlester" lump:		
20.....	School.....		
400.....	Cheyenne and Arapaho Indians.....	290	5.75
	For Carlisle School, Pa. (f. o. b. cars Gettysburg Junction, Pa.), "Lehigh" prepared anthracite.....		

Contracts awarded under advertisement of April 1, 1910, for coal—Continued.

Awards.	Point of delivery.	Contract No.	Awarded price per ton.
<i>Tons.</i>			
2,200.....	For Carlisle School, Pa. (f. o. b. cars Carlisle, Pa.), soft, "run of mine"...	174	(e)
350.....	Carson School, Nev., soft, Rock Springs lump.	280	\$11.25
	For Crow Agency and school, Mont. (f. o. b. cars Crow Agency Station, Mont.), soft, Carney screened lump:		
1,150.....	Agency.....	238	2.60
300.....	School.....		
150.....	F. o. b. cars Lodge Grass, Mont. (for Crow Agency), soft, Carney screened lump.	238	2.60
350.....	F. o. b. cars Pryor, Mont. (200 tons for Crow Agency and 150 tons for Pryor School), soft, Carney screened lump.	238	2.10
	Fort Peck School and Agency, Mont., "Sand Coulee" screened lump, delivery at—		
350.....	School.....	58	6.25
200.....	Agency.....		
1,600.....	For Genoa School, Nebr. (f. o. b. cars Genoa, Nebr.), "Weir City" soft, nut.	46	4.416
	For delivery at Grand Junction School, Colo., "Book Cliff" soft, lump...	31	2.55
600.....	For delivery at Grand Junction School pump house, Colo., "Book Cliff" soft, lump.	31	2.75
	Jicarilla School and Agency, N. Mex., Monero No. 1 soft, lump, delivered at—		
300.....	School (in bins).....	298	4.65
30.....	Agency (in bins).....	298	4.00
40.....	For Kaw School, Okla. (f. o. b. cars Kaw, Okla.), soft, "McAlester" lump.	211	6.00
200.....	For Klekapoo School, Kans. (f. o. b. cars Johnston City, Ill.), soft, "Black Briar" lump.	157	1.75
	For Kiowa Agency and Schools, Okla. (f. o. b. cars Anadarko, Okla.), soft, "McAlester" lump:		
10.....	Agency.....	211	5.75
170.....	Riverside School.....		
240.....	Fort Bill School (f. o. b. cars Lawton Okla.).....	211	5.95
240.....	Rainy Mountain School (f. o. b. cars Gotebo, Okla.).....	211	5.95
150.....	For Mesquero School, N. Mex. (f. o. b. cars Tularosa, N. Mex.), "Dawson" soft lump, screened over a 4-inch shaking screen.	112	5.30
	In bins, Mount Pleasant School, Mich.—		
1,400.....	Soft, "Riverside" $\frac{1}{2}$ lump.....	48	2.29
30.....	"Lehigh Valley" anthracite.....	48	7.70
	For Pawnee Agency and School (f. o. b. cars Pawnee, Okla.), soft, "McAlester" lump:		
10.....	Agency.....	211	5.35
35.....	School.....		
35.....	School (soft, "McAlester" nut).....	238	4.70
800.....	In bins, Rapid City School, S. Dak., soft, Carney screened lump.		
80.....	For Sac and Fox School and Agency, Okla. (70 tons for school and 10 tons for agency), f. o. b. cars Stroud, Okla., soft, "McAlester" lump	211	5.35
200.....	For Sac and Fox School, Iowa (f. o. b. cars Johnston City, Ill.), soft, "Black Briar" lump.	157	1.75
180.....	For Seger School, etc., Okla. (160 tons for school and 20 tons for Cheyenne and Arapaho), f. o. b. cars Weatherford, Okla., soft, "McAlester" lump.	211	5.75
180.....	For Shawnee School, Okla. (f. o. b. cars Thackery, Okla.), soft, domestic lump, from Hartshorne bed or seam, McAlester Coal Mining Co.'s mine, at Buck, Okla.	221	5.10
100.....	Umatilla School, Oreg., "Rock Springs" soft lump.	30	7.925

e If "Orendo" coal from Orendo mine at Boswell, Pa., should be called for and delivered, \$2.40 per ton. If "Jerome" coal from Jerome mine at Jerome, Pa., should be called for and delivered, \$2.40 per ton. If "Elk Lick" coal from Elk Lick No. 3 mine at West Salisbury, Pa., should be called for and delivered, \$2.37 per ton.

Contracts awarded under advertisement of July 25, 1910, for flour.

Awards.	Agencies, schools, and tribes.	Point of delivery.	Number of contractor.	Price per 100 pounds net.
<i>Pounds.</i>				
70,000.....	Albuquerque School, N. Mex.....	F. o. b. Lind, Wash.....	209	e \$4.35
12,000.....	Bena School, Minn.....	do.....		
16,000.....	Bismarck School, N. Dak.....	do.....		
18,650.....	Blackfeet School, Mont.....	do.....		
24,720.....	Holy Family Mission School, Mont.....	do.....		
2,700.....	Day schools, Mont.....	do.....		
30,000.....	Agency, Mont.....	do.....		

e Per 106 pounds gross. To be delivered in cotton sacks weighing 98 pounds gross each.

Contracts awarded under advertisement of July 25, 1910, for flour—Continued.

Awards.	Agencies, schools, and tribes.	Point of delivery.	Number of contractor.	Price per 100 pounds net.
<i>Pounds.</i>				
2,000.	Cantonment School, Okla.	Canton, Okla.	237	\$2.50
500.	Police, Okla.	do.		
20,000.	Canton Insane Asylum, S. Dak.	F. o. b. Lind, Wash.	209	• 4.35
10,000.	Cass Lake School, Minn.	do.	101	2.97
30,000.	Cherokee School, N. C.	Whittier, N. C.		
32,000.	Cheyenne and Arapahoe School, Okla.	Concho Siding, Okla.	237	2.40
600.	Police, Okla.	do.		
30,000.	Cheyenne River School, S. Dak.	Cheyenne River agency, S. Dak.	52½	2.90
6,000.	Day schools, S. Dak.	do.		
125,000.	Agency, S. Dak.	do.		
100,000.	Chilocco School, Okla.	Chilocco School, Okla.	237	2.44
21,000.	Crow Creek School, S. Dak.	Chamberlain, S. Dak.	230	2.65
37,500.	Agency S. Dak.	do.		
100,000.	Flandreau School, S. Dak.	F. o. b. Lind, Wash.		
5,000.	Flandreans, S. Dak.	do.		
665.	Fond du Lac School, Minn.	do.	209	• 4.35
4,000.	Chippewa Indians, Minn.	do.		
1,400.	Police, Minn.	do.		
40,000.	Fort Hall School, Idaho.	Rossfork, Idaho.	27	2.10
28,000.	Agency, Idaho.	do.		
18,000.	Fort Belknap School, Mont.	Harlem, Mont.	27	2.70
25,000.	Agency, Mont.	do.		
3,200.	Fort Berthold Day schools, N. Dak.	F. o. b. Lind, Wash.	209	• 4.35
32,000.	Agency, N. Dak.	do.		
16,000.	Fort Peck School, Mont.	Poplar, Mont.	27	• 2.80
4,500.	Day schools, Mont.	do.		
40,000.	Agency, Mont.	do.		
76,000.	Fort Totten School, N. Dak.	F. o. b. Lind, Wash.		
30,000.	Devils Lake Sioux, N. Dak.	do.	209	• 4.35
6,400.	Turtle Mountain School, N. Dak.	do.		
62,000.	Chippewa Indians, N. Dak.	do.		
90,000.	Genoa School, Nebr.	Genoa, Nebr.	206	2.45
48,000.	Grand Junction School, Colo.	Grand Junction, Colo.	27	• 2.65
150,000.	Haskell Institute, Kans.	Lawrence, Kans.	237	2.53
80,000.	Hayward School, Wis.	F. o. b. Lind, Wash.		
20,000.	Jicarilla School, N. Mex.	do.	209	• 4.35
20,000.	Agency, N. Mex.	do.		
800.	Kalbab School, Ariz.	do.		
15,000.	Keshena School, Wis.	Shawano, Wis.	237	2.68
1,000.	Police, Wis.	do.		
18,000.	Klappan School, Kans.	Germantown, Kans.	237	2.81
20,000.	Kiowa Riverside School, Okla.	Anadarko, Okla.	237	2.40
10,000.	Agency, Okla.	Lawton, Okla.		
33,000.	Fort Sill School, Okla.	Gotebo, Okla.	237	2.54
20,000.	Rainy Mountain School, Okla.	F. o. b. Lind, Wash.		
24,000.	Lac du Flambeau School, Wis.	do.		
8,000.	La Pointe Day School, Wis.	do.		
15,000.	Agency, Wis.	do.	209	• 4.35
4,400.	Police, Wis.	do.		
20,000.	Leech Lake School, Minn.	do.		
17,500.	Agency, Minn.	do.		
18,000.	Lower Brule School, S. Dak.	Reliance, S. Dak.	230	• 2.65
25,000.	Agency, S. Dak.	do.		
22,000.	Mescalero School, N. Mex.	F. o. b. Lind, Wash.	209	• 4.35
12,000.	Mescalero Agency, N. Mex.	F. o. b. Lind, Wash.	209	• 4.35
75,000.	Mount Pleasant School, Mich.	Mount Pleasant, Mich.	5	2.35
1,300.	Navajo Springs—School, Colo.	F. o. b. Lind, Wash.		
60,000.	Agency, Colo.	do.		
2,000.	Nett Lake School, Minn.	do.	209	• 4.35
3,000.	Bols Fort Chippewas, Minn.	do.		
20,000.	Oneida School, Wis.	do.		
28,000.	Osage School, Okla.	Pawhuska, Okla.	237	2.54
15,000.	Otoe School, Okla.	Red Rock, Okla.	73	2.60
32,000.	Ouray Agency, Utah.	F. o. b. Lind, Wash.	209	• 4.35
24,000.	Pawnee School, Okla.	Pawnee, Okla.	73	2.60
33,000.	Pierre School, S. Dak.	Pierre School, S. Dak.	152½	2.75
60,000.	Pine Ridge School, S. Dak.	Rushville, Nebr.	230	2.30
15,000.	Day schools, S. Dak.	do.		
412,500.	Agency, S. Dak.	do.		
50,000.	Pipestone School, Minn.	F. o. b. Lind, Wash.	209	• 4.35
800.	Birch Cooley Day School, Minn.	do.		
21,000.	Ponca School, Okla.	White Eagle Agency, Okla.	73	2.60

• Per 100 pounds gross. Delivered in cotton sacks weighing 98 pounds gross each.

• Only.

• One shipment.

Contracts awarded under advertisement of July 25, 1910, for flour—Continued.

Awards.	Agencies, schools, and tribes.	Point of delivery.	Number of contractor.	Price per 100 pounds net.
<i>Pounds.</i>				
45,000	Rapid City School, S. Dak.	Rapid City, S. Dak.	101	\$2.52
22,000	Red Lake School, Minn.	F. o. b. Lind, Wash.	200	4.35
10,000	Agency, Minn.	do		
2,500	Police, Minn.	do		
11,000	Cross Lake School, Minn.	do	101	2.34
35,000	Rosebud School, S. Dak.	Valentine, Nebr.		
20,000	Day School, S. Dak.	do		
125,000	Agency, S. Dak.	do	209	4.35
90,000	Santa Fe School, N. Mex.	F. o. b. Lind, Wash.		
11,000	Sac and Fox School, Okla.	Stroud, Okla.	237	2.59
6,500	Sac and Fox School, Iowa.	F. o. b. Lind, Wash.	209	4.35
700	Mesquakie Day School, Iowa.	do		
35,000	San Juan School, N. Mex.	do		
6,000	San Juan School, Navajo Indians, N. Mex.	F. o. b. Lind, Wash.	209	4.35
10,000	Santee, Santee Indians, Nebr.	Springfield, S. Dak.	101	2.66
25,000	Seger School, Okla.	Weatherford, Okla.	237	2.49
3,000	Cheyenne and Arapahoe Indians, Okla.	do		
26,000	Seneca School, Okla.	Wyandotte, Okla.	237	2.59
25,000	Shawnee School, Okla.	Thackery, Okla.	237	2.54
800	Shivwits School, Utah	F. o. b. Lind, Wash.	209	4.35
45,000	Shoshone School, Wyo.	Lander, Wyo.	101	2.61
30,000	Shoshone Indians, Wyo.	do		
16,500	Northern Arapahoe Indians, Wyo.	do		
13,500	Northern Arapahoe Indians, Wyo.	Arapahoe, Wyo.	200	4.35
27,000	Sisseton School, S. Dak.	F. o. b. Lind, Wash.		
960	Police, S. Dak.	do		
11,500	Southern Ute School, Colo.	Ignacio, Colo.	237	3.20
27,000	Agency, Colo.	do		
8,000	Springfield School, S. Dak.	Springfield, S. Dak.	101	2.60
35,000	Standing Rock Agency School, N. Dak.	F. o. b. Lind, Wash.	200	4.35
20,000	Agricultural School, N. Dak.	do		
7,000	Day schools, N. Dak.	do		
25,000	Grand River School, N. Dak.	do	230	2.60
200,000	Agency, N. Dak.	do		
48,000	Tomah School, Wis.	Tomah, Wis.		
40,000	Uintah, Uintahs, etc., Utah	F. o. b. Lind, Wash.	209	4.35
8,000	School, Utah	do		
21,500	Vermillion Lake School, Minn.	do		
30,000	Wahpeton School, N. Dak.	do	200	4.35
35,000	White Earth, White Earth School, Minn.	do		
12,000	White Earth Chippewas, Minn.	do		
8,000	Pine Point School, Minn.	do	230	2.60
500	Porterville Day School, Minn.	do		
1,000	Wild Rice River School, Minn.	do		
1,000	Elbow Lake Day School, Minn.	do	200	4.35
1,000	White Earth—Beaulieu Day School, Minn.	do		
700	Poplar Grove Day School, Minn.	do		
900	Buffalo River Day School, Minn.	do	230	2.60
24,000	Wittenberg School, Wis.	do		
15,000	Yankton School, S. Dak.	Wagner, S. Dak.		
25,000	Agency, S. Dak.	do	209	4.35
20,000	Colorado River—School, Ariz.	F. o. b. Lind, Wash.		
14,000	Agency, Ariz.	do		
50,000	Carson School, Nev.	do	200	4.35
7,000	Colville, Fort Spokane School, Wash.	do		
6,000	Day schools, Wash.	do		
8,000	Agency, Wash.	do	200	4.35
2,000	Joseph's Band, Wash.	do		
2,400	Nespelem police, Wash.	do		
1,000	Nespelem subagency, Wash.	do	200	4.35
800	Fallon School, Nev.	do		
50,000	Fort Apache School, Ariz.	do		
40,000	Agency, Ariz.	do	200	4.35
1,100	Cibecue Day School, Ariz.	do		
1,800	East Fork Day School, Ariz.	do		
15,000	Fort Lapwai School, Idaho	do	200	4.35
900	Fort McDermitt School, Oreg.	do		
500	Police, Oreg.	do		

a Per 106 pounds gross; delivered in cotton sacks weighing 98 pounds gross each.

b One shipment.

Contracts awarded under advertisement of July 25, 1910, for flour—Continued.

Awards.	Agencies, schools, and tribes.	Point of delivery.	Number of contractor.	Price per 100 pounds net.
<i>Pounds.</i>				
40,000	Fort Mojave School, Ariz	F. o. b. Lind, Wash	209	a \$4.35
25,000	Fort Yuma School, Cal	do.		
15,000	Greenville School, Cal	do.		
3,000	For Indians, Cal	do.		
1,200	Havasupai School, Ariz	do.	229	2.975
28,000	Hoopa Valley School, Cal	Korbel, Cal		
8,000	Agency, Cal	do.		
1,300	Police, Cal	do.		
24,000	Klamath School, Oreg	Klamath Falls, Oreg	169	a 2.30
2,400	Day Schools, Oreg	do.		
16,000	Leupp School, Ariz	F. o. b. Lind, Wash		
45,000	Moqui School, Ariz	do.		
3,000	Second Mesa Day School, Ariz	do.	209	b 4.35
900	Police	do.		
2,400	Pisaca Day School, Ariz	do.		
1,500	Chimpy Day School, Ariz	do.		
60,000	Navajo School, N. Mex	do.	209	b 4.35
20,000	Tohatchi School, N. Mex	do.		
10,000	Agency, N. Mex	do.		
15,000	Chin Lee School, N. Mex	do.		
5,000	Neah Bay Agency, Wash	do.	274	2.79
18,000	Nevada School, Nev	do.		
8,000	Agency, Nev	do.		
180,000	Phoenix School, Ariz	Phoenix, Ariz		
36,000	Pima School, Ariz	F. o. b. Lind, Wash	209	b 4.35
60,000	Agency, Ariz	do.		
53,500	Puyallup (Cushman) School, Wash	do.		
50,000	Rice Station School, Ariz	do.		
14,500	Round Valley—School, Cal	do.	209	b 4.35
4,000	Agency, Cal	do.		
130,000	Salem School, Oreg	do.		
2,500	San Carlos School, Ariz	do.		
65,000	Agency, Ariz	do.	108	2.80
160,000	Sherman Institute, Cal	do.		
10,000	Siletz agency, Oreg	Siletz, Oreg		
19,000	Truxton Canyon School, Ariz	F. o. b. Lind, Wash		
10,000	Hualapai Indians, Ariz	do.	209	b 4.35
40,000	Tulalip School, Wash	do.		
2,500	Walker River School, Nev	do.		
680	Piute Indians, Nev	do.		
720	Police, Nev	do.	209	a 4.35
19,000	Western Navajo School, Ariz	do.		
5,000	Western Shoshone School, Nev	do.		
12,000	Agency, Nev	do.		
27,000	Yakima School, Wash	do.	209	a 4.35
3,600	Agency, Wash	do.		
17,500	Zuni School, N. Mex	do.		
3,000	Grande Ronde Agency, Oreg	do.		
720	Police, Oreg	do.		

a Delivery to be completed by Dec. 1, 1910.

b Per 196 pounds gross; delivered in cotton sacks weighing 98 pounds gross each.

Contracts awarded under advertisement of August 12, 1910, for corn meal, cracked wheat, hominy, rolled oats, dried fruits, canned tomatoes, feed, oats, etc.

Awards.	Article.	No. of contractor.	Unit price.	Place of delivery.
55,635 pounds	Corn meal:			
45,000 pounds	White, kiln-dried	101	a \$1.41	Omaha.
30,265 pounds	Yellow	101	a 1.41	Do.
60,000 pounds	Cracked wheat	207	2.25	San Francisco.
84,650 pounds	Hominy	216	a b 1.64	Chicago.
	Rolled oats, in pasteboard boxes of 2 pounds net each.	216	a b 3.33	Do.
39,000 pounds	Rolled oats, compressed, in lacquered-tin cans, of 2 pounds net each.	216	a b 5.69	Do.
99,300 pounds	Dried apples	222	c 7.42	San Francisco.
104,200 pounds	Dried peaches	222	c 5.75	Do.
130,000 pounds	Dried prunes	222	c 5.90	Do.
5,325 doz. cans	Tomatoes; No. 3 size of can	107	b 4.912	Do.
		268	c 1.10	Chicago.

c Per cwt.

b Only.

c In 50-pound boxes.

d Awarded 2,045 dozen.

e Awarded 3,280 dozen.

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Contracts awarded under advertisement of August 12, 1910, for corn meal, cracked wheat, hominy, rolled oats, dried fruits, canned tomatoes, feed, oats, etc.—Continued.

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Awards.	Agencies, schools, and tribes.	Point of delivery.	Number of contractor.	Price per 100 pounds net.
<i>Pounds.</i>				
20,000	Albuquerque School, N. Mex.	F. o. b. Arkansas City, Kans.	237	\$1.77
800	Bena School, Minn.	Bena, Minn.	85	1.30
3,000	Cantonment School, Okla.	Canton, Okla.	237	1.53
5,000	Cheyenne River School, S. Dak.	Cheyenne Agency, S. Dak.	1524	1.20
30,000	Chilocco School, Okla.	Erie, Okla., or Chilocco, Okla.	60	1.18
10,000	Hayward School, Wis.	Hayward, Wis.	1524	1.10
1,500	Kiowa, Fort Sill School, Okla.	Lawton, Okla.	237	1.47
6,000	Lac du Flambeau School, Wis.	Lac du Flambeau, Wis.	1524	1.10
12,000	Mount Pleasant School, Mich.	Mount Pleasant School, Mich.	48	1.22
15,000	Osage School, Okla.	Pawhuska, Okla.	60	1.15
4,000	Otoe School, Okla.	Red Rock, Okla.	237	1.31
6,000	Pawnee Agency, Okla.	Pawnee, Okla.	60	1.17
5,000	Red Lake—Cross Lake School, Minn.	Cross Lake School warehouse, Minn.	244	1.9999
10,000	Santa Fe School, N. Mex.	F. o. b., Arkansas City, Kans.	237	1.67
3,800	Sac and Fox—School, Okla.	Stroud, Okla.	237	1.39
1,000	Agency, Okla.	do.		
7,500	Seneca School, Okla.	Wyandotte, Okla.	237	1.29
4,000	Standing Rock—Agricultural School, N. Dak.	Agricultural School, N. Dak.	30	1.52
10,000	Agency, N. Dak.	Agency, N. Dak.	30	1.52
3,800	Wittenberg School, Wis.	F. o. b., Wittenberg, Wis.	299	1.10
5,000	Carson School, Nev.	Indian School Station, Nev. (on V. and T. R. R.)	218	1.40
7,500	Klamath School, Oreg.	Klamath Falls, Oreg.	109	1.20
11,500	Tulalip School, Wash.	Everett, Wash.	197	1.35
1,500	Zuni School, N. Mex.	Blackrock, N. Mex.	189	2.35

FEED.

<i>Pounds.</i>				
15,000	Albuquerque School, N. Mex.	Albuquerque, N. Mex.	32	\$1.71
7,000	Bena School, Minn.	Bena, Minn.	85	1.40
4,500	Cantonment School, Okla.	Canton, Okla.	237	1.73
10,000	Cheyenne River School, S. Dak.	Cheyenne Agency, S. Dak.	1524	1.40
10,000	Hayward School, Wis.	Hayward, Wis.	1524	1.35
7,500	Jicarilla School, N. Mex.	Dulce, N. Mex.	237	2.18
10,000	Agency, N. Mex.	do.		
37,500	Lac du Flambeau School, Wis.	Lac du Flambeau, Wis.	1524	1.30
20,000	Leech Lake School, Minn.	Walker, Minn.	1524	1.30
16,000	Agency.	do.	276	1.50
10,000	Lower Brule School, S. Dak.	Reliance, S. Dak.		
12,000	Mount Pleasant School, Mich.	Mount Pleasant School, Mich.	48	1.22
15,000	Osage School, Okla.	Pawhuska, Okla.	237	1.53
14,000	Pawnee Agency, Okla.	Pawnee, Okla.	237	1.53
20,000	Rapid City School, S. Dak.	F. o. b. Neligh, Nebr.	101	1.20
5,000	Red Lake School, Minn.	Red Lake School, Minn.	244	1.9999
5,000	Cross Lake School, Minn.	Cross Lake School, Minn.	244	2.4664
2,000	Rosebud Agency, S. Dak.	F. o. b. Neligh, Nebr.	101	1.20
20,000	Santa Fe School, N. Mex.	Santa Fe, N. Mex.	32	1.71
12,000	Seneca School, Okla.	Wyandotte, Okla.	237	1.53
1,500	Springfield School, S. Dak.	Springfield School, S. Dak.	1524	1.30
10,000	Standing Rock Agency school, N. Dak.	Agency School, N. Dak.	30	1.69
6,000	Agricultural school, N. Dak.	Agricultural School, N. Dak.	30	1.74
6,200	Day schools, N. Dak.	Agency day School, N. Dak.	30	1.69
20,000	Agency, N. Dak.	Agency, N. Dak.	30	1.69
11,500	Wittenberg School, Wis.	F. o. b. Wittenberg, Wis.	299	1.40
22,500	Navajo School, N. Mex.	Gallup, N. Mex.	32	1.83
7,500	Tohatchi school, N. Mex.	do.		
60,000	Agency, N. Mex.	do.		
7,500	Chin Lee School, N. Mex.	do.		
3,500	Truxton Canyon School, Ariz.	Hackberry or Tinnak, Ariz.	263	2.50
15,000	Tulalip School, Wash.	Everett, Wash.	197	1.875
3,800	Zuni School, N. Mex.	Gallup, N. Mex.	32	1.83

• All sacks to be returned.

• All to be delivered by December 1, 1910.

Contracts awarded under advertisement of August 12, 1910, for corn meal, cracked wheat, hominy, rolled oats, dried fruits, canned tomatoes, feed, oats, etc.—Continued.

OATS.

Awards.	Agencies, schools, and tribes.	Point of delivery.	Number of contractor.	Price per 100 pounds net.
<i>Pounds.</i>				
36,000	Albuquerque School, N. Mex.	Albuquerque, N. Mex.	32	• \$1.73
22,000	Pueblo Indians, N. Mex.	do		
2,190	Bay Mills School, Mich.	Brimley, Mich.	266	1.90
4,500	Bena School, Minn.	Bena, Minn.	86	1.50
26,500	Cantonment School, Okla.	Canton, Okla.	237	1.49
20,000	Cheyenne River School, S. Dak.	Cheyenne Agency, S. Dak.	1524	1.40
70,000	Agency, S. Dak.	do		
18,000	Crow Creek School, S. Dak.	Chamberlain, S. Dak.	276	1.45
155,000	Agency, S. Dak.	do		
16,000	Fort Peck School, Mont.	Poplar, Mont.	237	1.83
100,000	Agency, Mont.	do		
36,000	Grand Junction School, Colo.	Grand Junction, Colo.	227	2.27
10,000	Hayward School, Wis.	Hayward, Wis.	1524	1.35
15,000	Jicarilla School, N. Mex.	Dulce, N. Mex.	237	1.97
60,000	Agency, N. Mex.	do		
40,000	Keshena School, Menomonee Indians, Wis.	Shawano, Wis.	237	1.49
22,500	Kiowa Agency, Okla.	Anadarko, Okla.	60	1.48
7,500	Fort Sill School, Okla.	Lawton, Okla.	237	1.65
15,000	Rainy Mountain School, Okla.	Gotabo, Okla.	60	1.53
36,000	Lac du Flambeau School, Wis.	Lac du Flambeau, Wis.	1524	1.20
25,000	La Pointe Agency, Wis.	Ashland, Wis.	237	1.47
10,000	Leech Lake School, Minn.	Walker, Minn.	1524	1.30
15,000	Agency, Minn.	do		
10,000	Mount Pleasant School, Mich.	Mount Pleasant, Mich.	5	1.25
9,600	Osage School, Okla.	Pawhuska, Okla.	60	1.48
10,000	Otoe School, Okla.	Red Rock, Okla.	237	1.69
17,000	Pawnee Agency, Okla.	Pawnee, Okla.	60	1.48
25,000	Pierre School, S. Dak.	Pierre School, Pierre, S. Dak.	1524	1.30
150,000	Pine Ridge Agency, S. Dak.	F. o. b. Rushville, Nebr.	101	1.38
12,000	Red Lake School, Minn.	Redby, Minn.	237	1.73
25,000	Agency, Minn.	do		
5,000	Cross Lake School, Minn.	do	237	1.73
160,000	Rosebud Agency, S. Dak.	F. o. b. Crookston, Nebr.	101	1.36
20,000	Santa Fe School, N. Mex.	Santa Fe, N. Mex.	32	1.78
40,000	Pueblo Indians, N. Mex.	do		
20,000	See and Fox Agency, Okla.	Stroud, Okla.	237	1.77
75,000	San Juan School, Navajo Indians, N. Mex.	Farmington, N. Mex.	237	2.19
20,000	Southern Ute Agency, Colo.	Ignacio, Colo.	237	1.93
3,600	Springfield School, S. Dak.	Springfield School, S. Dak.	1524	1.30
9,000	Standing Rock Agency School, N. Dak.	Agency, N. Dak.	30	1.67
20,000	Day schools, N. Dak.	do	30	1.67
42,000	Grand River School, N. Dak.	McLaughlin, S. Dak.	237	1.63
125,000	Agency, N. Dak.	Agency, N. Dak.	30	1.67
48,000	Winnabago Agency, Nebr.	Winnabago, Nebr.	237	1.53
25,000	Yankton Agency, S. Dak.	Yankton Agency, S. Dak.	265	1.35
10,000	Carson School, Nev.	Carson School, Nev.	55	1.60
15,000	Greenville School, Cal.	Reno, Nev.	218	1.70
30,000	Klamath School, Oreg.	Klamath Falls, Oreg.	169	• 1.75
25,000	Agency, Oreg.	do		
11,000	Leupp School, Ariz.	Sunshine, Ariz.	32	1.83
17,000	Navajo Indians, Ariz.	do		
3,400	Field matron, Ariz.	do		
13,000	Police, Ariz.	do		
18,000	Moqui School, Ariz.	Holbrook, Ariz.	32	1.83
30,000	Moqui Indians, Ariz.	do		
6,000	Oralaba day school, Ariz.	Day school, Ariz.	83	3.65
7,500	Navajo School, N. Mex.	Gallup, N. Mex.	32	1.88
11,500	Tohatchi School, N. Mex.	do		
60,000	Agency, N. Mex.	do		
4,000	Chin Lee School, N. Mex.	do		
10,000	Neah Bay Agency, Wash.	Seattle, Wash.	197	1.875
20,000	Puyallup (Cushman) School, Wash.	Reservation, Wash.	197	1.875
70,000	Salem School, Oreg.	Albany, Oreg.	209	• 1.40
7,500	Truxton Canyon School, Ariz.	Hackberry, Ariz., or Tinnaka, Ariz.	263	2.50
13,000	Tulalip School, Wash.	Everett, Wash.	197	1.875
20,000	Agency, Wash.	do		
15,000	Western Navajo School, Ariz.	Flagstaff, Ariz.	13	2.35

• To be delivered during October, November, and December, 1910.

• To be delivered by December 1, 1910.

• For 100 pounds gross.

Contracts awarded under advertisement of August 12, 1910, for corn meal, cracked wheat, hominy, rolled oats, dried fruits, canned tomatoes, feed, oats, etc.—Continued.

OATS—Continued.

Awards.	Agencies, schools, and tribes.	Point of delivery.	Number of contractor.	Price per 100 pounds net.
<i>Pounds.</i>				
7,500.....	Yakima School, Wash.....	Toppenish, Wash.....	197	\$1.875
10,000.....	Agency, Wash.....	do.....		
10,500.....	Zuni School, N. Mex.....	Gallup, N. Mex.....		
15,000.....	Pueblo Bonito School, Navajo Indians, N. Mex.	do.....	32	1.83

SHORTS.

<i>Pounds.</i>				
3,000.....	Bena School, Minn.....	Bena, Minn.....	85	\$1.35
15,000.....	Cheyenne River School, S. Dak.....	Cheyenne Agency, S. Dak.....	1524	1.20
6,000.....	Lac du Flambeau School, Wis.....	Lac du Flambeau, Wis.....	1524	1.10
1,000.....	Osage School, Okla.....	Pawhuska, Okla.....	237	1.46
4,000.....	Otoe School, Okla.....	Red Rock, Okla.....	237	1.46
15,000.....	Red Lake School, Minn.....	Red Lake School warehouse, Minn.....	244	1.8900
4,000.....	Standing Rock Agricultural School, N. Dak.....	Agricultural School, N. Dak.....	30	1.59
10,000.....	Agency, N. Dak.....	Standing Rock Agency, N. Dak.....	30	1.57
3,800.....	Wittenberg School, Wis.....	F. o. b. Wittenberg, Wis.....	299	1.25
4,500.....	Hoopa Valley School, Cal.....	Korkel, Cal.....	229	1.80
15,000.....	Tulalip School, Wash.....	Everett, Wash.....	197	1.50

* All sacks to be returned.

**REPORT OF THE COMMISSIONER TO THE
FIVE CIVILIZED TRIBES.**

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REPORT OF THE COMMISSIONER TO THE FIVE CIVILIZED TRIBES.

DEPARTMENT OF THE INTERIOR,
COMMISSIONER TO THE FIVE CIVILIZED TRIBES,
Muskogee, Okla., October 10, 1910.

SIR: I have the honor to submit herewith report of the work of the office of the Commissioner to the Five Civilized Tribes for the year ended June 30, 1910. This report covers the work incident to the allotment of lands and other things necessary to be done in connection with the winding up of the affairs of the Five Civilized Tribes, the work accomplished by the Union Agency, and other departmental matters transacted under the supervision of this office; and the work of the supervisor of schools in the Five Civilized Tribes.

ENROLLMENT AND ALLOTMENT.

The status of the allotment work is shown by the following table:

Status of allotment work on June 30, 1910.

	Enrolled citizens entitled to allotments.	Area.	Reserved from al- lotment for town sites, rail- road rights of way, churches, schools, ceme- teries, and coal and asphalt seg- regations in the Choctaw and Chickasaw na- tions.	Allotted to June 30, 1910.	Unallotted, not including reservations, but including proposed fore- cast reserve in Choctaw Na- tion.
		<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Chickasaw	10,955	4,707,904.28	45,074.89	3,783,080.07	879,749.82
Choctaw	25,096	6,963,048.07	462,533.06	4,269,111.25	2,191,403.76
Mississippi Choctaw	1,634				
Creek	18,716	3,079,094.61	16,011.53	2,999,472.25	63,610.83
Seminole	3,122	365,851.67	1,612.88	360,790.36	3,448.43
Cherokee	41,716	4,420,067.73	21,000.00	4,348,766.23	50,301.50
Total	101,239	19,525,966.36	546,232.36	15,791,220.16	3,188,513.84

The year ended June 30, 1910, is notable in the history of the work of closing the affairs of the Five Civilized Tribes in that, with the close of the year, there has been brought to practical completion the most important feature of this great work, namely, the allotment of lands. The unexpected difficulties encountered in connection

with the allotment in severalty of the lands of the Five Tribes delayed the completion of this work far beyond the expectation of those concerned. During the last year the allottees were afforded every possible opportunity to voluntarily select their allotments, and after every effort to secure this result had been exhausted, in order to complete the work, arbitrary allotments were made to all citizens whose selections were incomplete. This action was taken after final notice was given that all the applications would have to be filed within a specified time. In the Seminole Nation, as heretofore reported, the allotment work was completed several years ago, the one thing yet undone in connection with the allotment of Seminole lands being the recording and delivery of patents, all of which have been prepared and are at the department. In the Choctaw, Chickasaw, Creek, and Cherokee nations practically all patents have been prepared and delivery effected except in cases where allottees have refused to accept them or the office has been unable to locate them for the purpose of making delivery. Final allotments have not been made and certificates of selection or deeds have not been issued to 5,605 minor Cherokees enrolled under the act of April 26, 1906, because there is now pending in the Supreme Court of the United States a suit involving the legality of their enrollment.

On January 10, 1910, was begun the payment of \$492,811.34 to 71,862 members of the Choctaw, Chickasaw, and Cherokee nations having due them not to exceed \$50 on their allotments, as provided in the act of March 3, 1909. To June 30, 1910, the sum of \$211,913.50 had been paid to 27,881 citizens.

Conditions affecting the allottees of the Five Civilized Tribes have undergone no material change during the past year, no new legislation having been enacted. Through the United States superintendent, in charge of the Union Agency, and the district agency force, and under the laws governing such matters the affairs of the restricted class of Indians have been carefully watched and their interests protected so far as possible. In assessing taxes for the years 1908 and 1909 county officials in eastern Oklahoma have shown a disposition to ignore the statutes applying to the alienability of land, and many tracts of restricted land were assessed and advertised for sale for the nonpayment of taxes. Injunctions restraining these sales were secured from the United States court, and efforts are being made to prevent a recurrence of this condition.

UNALLOTTED LAND.

The unallotted land of the Five Civilized Tribes, not including 452,222.46 coal and asphalt segregations in the Choctaw and Chickasaw nations and 1,373,324.62 acres for the proposed forest reserve in the Choctaw Nation, amounts to 1,815,189.22 acres, distributed as follows:

Unallotted land of the Five Civilized Tribes, by counties.

SEMINOLE NATION.		CHEROKEE NATION.	
	Acres.		Acres.
Seminole County	3, 448. 48	Sequoyah County	12, 305. 65
CHOCTAW NATION.		Muskogee County	5, 298. 06
Atoka County	145, 155. 78	Ottawa County	377. 48
Bryan County	12, 353. 70	Delaware County	5, 021. 04
Choctaw County	48, 955. 09	McIntosh County	1, 277. 50
Coal County	53, 542. 83	Craig County	2, 849. 38
Haskell County	46, 866. 81	Wagoner County	421. 83
Hughes County	77, 864. 87	Tulsa County	10. 00
Johnston County	4, 354. 90	Nowata County	129. 29
Latimer County	18, 243. 14	Rogers County	1, 121. 50
Le Flore County	35, 643. 71	Washington County	38. 28
McCurtain County	80, 228. 87	Cherokee County	11, 435. 65
Pittsburg County	212, 154. 41	Adair County	6, 656. 01
Pontotoc County	7, 677. 14	Mayes County	3, 859. 83
Pushmataha County	75, 038. 89		
	818, 079. 14		50, 301. 50
CHICKASAW NATION.		CREEK NATION.	
Bryan County	20, 912. 73	Creek County	17, 174. 86
Carter County	120, 401. 91	Hughes County	18, 319. 11
Coal County	6, 006. 40	Mayes County	1. 45
Garvin County	107, 301. 53	Muskogee County	18. 50
Grady County	81, 490. 43	McIntosh County	16, 681. 01
Jefferson County	74, 255. 40	Okfuskee County	6, 208. 69
Johnston County	51, 074. 94	Okmulgee County	4, 594. 63
Love County	96, 971. 47	Rogers County	37. 69
Murray County	41, 826. 61	Seminole County	245. 49
McClain County	55, 761. 43	Tulsa County	1, 867. 63
Marshall County	23, 945. 79	Wagoner County	3, 461. 77
Pontotoc County	68, 421. 51		
Stephens County	128, 379. 17		63, 610. 83
	879, 749. 32		

Preparations have been made for the early sale and disposition of these remaining surplus unallotted lands. Regulations governing the manner of sale of said lands, beginning in December, 1910, are under consideration by the department. Preparatory to the disposition of these lands lists thereof have been prepared in which they are described in tracts not exceeding 160 acres in extent, together with maps showing the location and area of the unallotted lands in each county, so that any particular tract of land offered for sale may be readily identified by the prospective purchaser.

ENROLLMENT.

In the last annual report reference was made to a field investigation which was under way to determine the date of death of a number of enrolled citizens on whose behalf no application had been made to select allotments or who, from information already secured, appeared to have died prior to the date upon which they must have been living to be entitled to allotments. As a result of this investigation it was found that in the Choctaw, Chickasaw, and Cherokee nations there were about 250 cases of persons who had died prior to

The following statement shows the total number of allotments and total number of acres allotted in the Choctaw and Chickasaw nations during the fiscal year ended June 30, 1910:

Allotments in Choctaw and Chickasaw nations for year ended June 30, 1910.

Roll.	Number of allotments.	Number of acres.
Choctaws by blood.....	60	9,131.46
Choctaws by intermarriage.....	14	1,516.78
Choctaw freedmen.....	18	571.71
Choctaw new borns.....	20	4,740.75
Choctaw minors.....	65	16,117.44
Choctaw freedmen minors.....	21	860.23
Chickasaws by blood.....	18	2,891.31
Chickasaws by intermarriage.....	2	335.00
Chickasaw freedmen.....	6	226.67
Chickasaw new borns.....	12	2,048.26
Chickasaw minors.....	8	2,641.00
Mississippi Choctaws.....	21	2,241.25
Mississippi Choctaw minors.....	12	2,104.42
Murrow Indian Orphans' Home.....	1	20.00
	278	45,446.28

CHOCTAW NATION.

During the year 111 allotments of land, embracing 23,839.52 acres, in the Choctaw Nation were made to citizens and freedmen of the Choctaw and Chickasaw nations. Allotment certificates and patents covering all of the land embraced in these allotments, where the contest period has expired, have been prepared.

The following statements show in detail the progress of the allotment work in the Choctaw Nation during the past year and the condition of the work on June 30, 1910:

Status of allotments in the Choctaw Nation on June 30, 1910.

	Acres.
Total area of the Choctaw Nation.....	6,953,048.07
Total area reserved from allotment for town sites, coal and asphalt segregations, etc.....	462,533.06
Total area which was subject to allotment April 15, 1903, the date of the opening of the land offices at Atoka and Tishomingo	6,490,515.01
Total area allotted up to and including June 30, 1910.....	4,299,111.25
Total area of unallotted land on June 30, 1910.....	2,191,403.76
Total area reserved for proposed forest reserve.....	1,373,324.62
Total area subject to allotment June 30, 1910.....	818,079.14

Allotments in Choctaw Nation during fiscal year ended June 30, 1910.

Roll.	Number of allotments.	Number of acres allotted.
Choctaws by blood.....	19	3,110.46
Choctaws by intermarriage.....	5	405.44
Choctaw freedmen.....	9	284.11
Choctaw new borns.....	6	1,900.00
Choctaw minors.....	35	10,280.26
Choctaw freedmen minors.....	9	380.23
Chickasaws by blood.....	5	2,060.45
Chickasaws by intermarriage.....	1	53.26
Chickasaw freedmen.....	3	110.22
Chickasaw new borns.....	3	530.00
Chickasaw minors.....	4	1,860.22
Mississippi Choctaws.....	6	1,193.52
Mississippi Choctaw minors.....	6	1,689.35
	111	23,839.52

CHICKASAW NATION.

During the year 167 allotments, embracing 21,606.76 acres, were made to Choctaw and Chickasaw citizens and freedmen in the Chickasaw Nation. Allotment certificates and patents covering the lands thus allotted have been prepared in all cases where the contest period has expired.

The following statements show the progress of the allotment work in the Chickasaw Nation during the past year and the condition of the work on June 30, 1910:

Status of allotments in the Chickasaw Nation on June 30, 1910.

	Acres.
Total area of Chickasaw Nation.....	4,707,904.28
Total area reserved for town sites, coal and asphalt, sulphur springs, etc.....	45,074.89
Total area which was subject to allotment April 15, 1903, the date of the opening of the land offices at Atoka and Tishomingo.....	4,662,829.39
Total area allotted up to and including June 30, 1910.....	3,783,080.07
Total area subject to allotment June 30, 1910.....	879,749.32

Allotments in Chickasaw Nation during year ended June 30, 1910.

Roll.	Number of allotments.	Number of acres allotted.
Choctaws by blood.....	41	6,021.00
Choctaws by intermarriage.....	9	1,111.34
Choctaw freedmen.....	9	285.60
Choctaw new borns.....	14	2,840.75
Choctaw minors.....	30	5,857.18
Choctaw freedmen minors.....	12	480.00
Chickasaws by blood.....	13	830.86
Chickasaws by intermarriage.....	1	281.74
Chickasaw freedmen.....	3	116.45
Chickasaw new borns.....	9	1,518.26
Chickasaw minors.....	4	780.79
Mississippi Choctaws.....	15	1,047.73
Mississippi Choctaw minors.....	6	415.07
Murrow Indian Orphans' Home.....	1	20.00
Total.....	167	21,606.76

Attention is invited to the discrepancies in the area of allotted and unallotted land in the Choctaw and Chickasaw nations as shown by a comparison between this and the last report of this office. This is accounted for by the fact that these amounts have been carried from year to year without being carefully checked until recently and that no account has been kept of the allotments relinquished from time to time which in the aggregate amount to a large area.

As heretofore, a prominent feature of the work of the office has been the preparation of certified copies of the records which are sold under the provisions of section 8 of the act of April 26, 1906, and furnishing, for the use of the various district agents in connection with this work, copies of the records as to enrollment and allotment. The records of this office have been checked against the leases and applications for the removal of restrictions filed with the Indian agency. During the past year the work of securing information relative to the 257 persons whose names appear on the approved roll for the Choctaw and Chickasaw nations, but for whom no allotments had been selected, was completed. From this investigation it developed that of this number 146 died prior to September 25, 1902, or were duplicate enrollments. Seven such persons could not be located nor can any information relative to them be secured up to the present time. The remaining cases were found to be properly enrolled and allotments have been made to them. In making final disposition of those cases where the parties were found to have died prior to September 25, 1902, great difficulty has been encountered in ascertaining the heirs in order that proper service of notice of the proposed action of the department might be served. This has operated to materially delay the completion of this particular work.

The work now before the office in connection with the Choctaw and Chickasaw tribes relative to the allotment of land is the preparation and delivery of certificates and patents to the lands recently allotted.

There are also in the files of the office about 3,000 Choctaw and Chickasaw certificates which have been returned and about 3,000 patents which have been returned and are now in the hands of the various district agents for delivery.

For the equalization of allotments of the members of the Choctaw and Chickasaw tribes there is to be prepared a supplemental roll aggregating 362 names not included on the roll under which payment has begun by reason of allotment contests and various other complications. A work of considerable magnitude is that of receiving applications from Choctaw and Chickasaw freedmen to exercise the right given them by the act of April 26, 1906, to purchase at its appraised value land sufficient with that already allotted to make 40 acres.

There are also pending a number of Mississippi Choctaw cases which involve the right of 26 persons to final patents to land allotted to them, such right being dependent on compliance with the requirements relating to residence prescribed by sections 42 and 44 of the act of Congress approved July 1, 1902 (32 Stat., 641). Little difficulty is anticipated in the disposition of these cases. There are many other small items of detail work to be accomplished too numerous to enumerate, which collectively will require a great deal of time and labor.

CREEK NATION.

Complete allotments of 160 acres, or as near that number of acres as may be, have been made to all Creek citizens and freedmen. There are, however, pending 13 tentative applications to select land allotted to persons whose names have been stricken from the rolls and to whom deeds have been issued and delivered. These applications are awaiting the result of suits that have been brought to cancel such deeds.

The following statement shows the status of the allotment of lands in the Creek Nation at the close of the fiscal year ended June 30, 1910:

Status of allotments in the Creek Nation on June 30, 1910.

	Acres.
Total area of the Creek Nation.....	3, 079, 094. 61
Total area reserved for town sites, railroad right of way, churches, schools, and cemeteries.....	16, 011. 53
Total area which was subject to allotment April 1, 1899, the date of the opening of the Creek land office.....	3, 063, 088. 08
Total area allotted to June 30, 1910.....	2, 999, 472. 25
Total area unallotted June 30, 1910.....	63, 610. 83

During the year 30 allotments, embracing 3,166.80 acres, were made to citizens and freedmen of the Creek Nation. The 13 tentative allotments still pending embrace 1,644.11 acres of land, which makes the total area of unallotted land amount to 63,610.83 acres.

There have been prepared during the year 49 allotment certificates and 129 deeds covering lands allotted to citizens and freedmen. All of these certificates where the contest period has expired have been mailed to the allottees, and all of the deeds have been executed by the principal chief of the Creek Nation and forwarded to the Secretary of the Interior for approval.

The work in this nation is practically completed. The unfinished work consists mainly in the disposition of the unallotted lands and the equalization of allotments.

Efforts were made to equalize Creek allotments upon a basis of \$800, under the provisions of the act of Congress approved March 3, 1909, but inasmuch as the Creek national council refused to accept the conditions named in that act, and as no further action has been taken, the matter of equalization of Creek allotments has been indefinitely postponed.

There is considerable amount of detail work yet to be done, such as the delivery of about 2,000 allotment certificates which have been returned unclaimed, the adjustment of tentative filings, and the completion of the new allotment plats.

SEMINOLE NATION.

Complete allotments have heretofore been made to all citizens and freedmen entitled to share in the distribution of the lands of the Seminole Nation, as shown from the annual report for the fiscal year ended June 30, 1909.

During the year 3,877 homestead and allotment deeds covering the allotment selections of Seminole citizens and freedmen were prepared on the new forms drawn up and approved by the department. These deeds, together with the 2,000 prepared during the fiscal year

ended June 30, 1909, making a total of 5,877, cover all Seminole allotments. These have been executed by the principal chief of the Seminole Nation and forwarded to the department for approval, where they are now being held at the instance of the Department of Justice.

The following statement shows the status of the allotment of lands in the Seminole Nation on June 30, 1910:

Status of allotments in the Seminole Nation on June 30, 1910.

	Acres.
Total area of Seminole Nation-----	365, 851. 67
Total area reserved from allotment for town sites, watersheds, railroad right of way, churches, schools, and cemeteries-----	2, 275. 63
Total area which is subject to allotment-----	363, 576. 04
Total area of allotted land-----	300, 790. 86
Total area of unallotted land-----	2, 785. 68

The above statement shows 179.04 acres more of unallotted land than is shown in the annual report for the fiscal year ended June 30, 1909. This is accounted for from the fact that two allotments have been canceled under departmental instructions during the year. In addition, land reserved from allotment for schools, churches, etc., to the amount of 662.75 acres has been abandoned for the purpose for which reserved, making a total of 3,448.43 acres to be disposed of.

The work incident to allotments in this nation remaining to be done consists of the delivery of the new deeds to the allottees when same are approved and returned by the department, the delivery of a considerable number of allotment certificates, which have been returned to the office for various reasons, and the preparation of deeds covering lands reserved for churches.

CHEROKEE NATION.

The matter of the allotment of land occupied a comparatively small share of the attention of the Cherokee division during the past fiscal year, as practically all the desirable land had already been taken up and deeds had been issued in practically all cases except where part of an allotment is involved in contest or similar proceedings and in the case of minors enrolled under the act of April 26, 1906, whose rights are still involved in the Muskrat case, now pending on appeal to the Supreme Court.

The following statements show the progress of the routine work and the status of enrollment and allotment in the Cherokee Nation:

Status of allotments in the Cherokee Nation, June 30, 1910.

	Acres.
Total area of Cherokee Nation-----	4, 420, 067. 73
Reserved from allotment for town sites, schools, churches, etc. (approximate)-----	21, 000. 00
Total area subject to allotment-----	4, 399, 067. 73
Allotted prior to July 1, 1909-----	4, 343, 186. 48
Allotted from July 1, 1909, to June 30, 1910-----	5, 579. 75
Total allotted-----	4, 348, 766. 23
Unallotted June 30, 1910-----	50, 301. 50

Distribution of allotments made in the Cherokee Nation during year ended June 30, 1910.

	Acres.
Citizens by blood, act of July 1, 1902.....	2, 382. 75
Citizens by intermarriage.....	70. 57
Freedmen, act of July 1, 1902.....	704. 77
Minor Cherokees, act of April 26, 1906.....	2, 281. 66
Minor freedmen, act of April 26, 1906.....	180. 00
Total.....	5, 579. 75

Enrollment of citizens of the Cherokee Nation and number of each class for whom allotments have been selected.

	Total number.	Number allotted.	Not allotted.
Cherokees by blood enrolled under the act of July 1, 1902.....	31, 330	31, 021	309
Registered Delawares.....	197	197	.....
Intermarried whites.....	286	283	3
Freedmen enrolled under act of July 1, 1902.....	4, 298	4, 284	14
Minor Cherokees enrolled under act of April 26, 1906.....	4, 990	3, 914	1, 076
Minor freedmen enrolled under act of April 26, 1906.....	615	405	120
Total.....	41, 716	40, 194	1, 522

In this report the area of the unallotted land is greater and the number of citizens less than given in the report for last year. The figures for the unallotted land were heretofore taken from a balance carried from year to year and never carefully checked; recently, however, an accurate computation of the unallotted land has been made and the figures now given are practically correct. The difference in the number of names enrolled is explained by the fact that only those persons entitled to allotment are included in this statement, and during the past year there have been brought to light numerous cases of persons, who, though regularly enrolled, are not entitled to allotment by reason of their having died prior to September 1, 1902. The excess in the number of deeds delivered over the number prepared is accounted for by the fact that a large number of deeds sent out by registered mail are returned by the postmasters unclaimed, and in many cases delivery is again requested at some other point. In some instances deeds are mailed three or four times before being received by the allottee.

One of the principal items of work accomplished during the past year was to investigate all cases of persons who had made no application to file, as well as numerous cases of apparent duplicate enrollment. This work was done in the field, and was of an extremely exacting nature. As a result, testimony has been secured and reports made to the department in more than 100 cases where persons, whose names appear on the approved roll, died prior to September 1, 1902, or have been enrolled and allotted in another tribe or under another number in the Cherokee Nation. In 90 cases the department has approved the recommendation of this office that notations be made on the approved roll opposite the names of such persons that they are not entitled to share in the distribution of the tribal property of the Cherokee Nation, and the necessary notations made. Several similar cases are still pending before the department, which when finally acted upon will further reduce the number of persons entitled to allotment.

Previous reports have set forth the efforts of the office to persuade Cherokee citizens to select allotments, notices having been sent in

both 1908 and 1909 to each allottee whose selection was incomplete that he should within a given time make a selection of land or advise the office of his preference for money in lieu thereof. The desirable land having been previously allotted, but few selections of land were made in response to these notices, and it is highly improbable that more than a very small amount of this land will ever be voluntarily allotted. The majority of the persons so notified who have not selected land to complete their allotments have advised the office of their preference for money. However, it became necessary to finally close the office to the allotment of land in order that the work be completed and the unallotted land sold, and, before this was done, it was thought advisable to again notify each allottee entitled to take land, who had not heretofore expressed a preference for money in response to previous notices. Such notices, explaining the necessity for closing the allotment work and allowing until August 1, 1910, to make any selections of land, were sent out by registered mail on June 25, 1910.

The fact that no decision has been reached in the case involving the right of minor Cherokees enrolled under the act of April 26, 1906, has operated to delay the completion of the work, as, until this case is decided, no final allotments can be made or deeds issued to the 4,400 citizens of this class to whom tentative allotments have been made.

With respect to citizens enrolled as of September 1, 1902, the work of allotment is practically complete, as it is not anticipated that more than a very few selections will be made during the month of July, and when the office is finally closed to allotments a few weeks' work on the part of one or two clerks will suffice for the preparation and issuance of the deeds not yet written and the accomplishment of whatever else is necessary to close this branch of the work. The combined tract books and ledgers, which will be left as the permanent record of this work, are written, with the exception of a few straggling cases, and need only to be given a final check, which is already about half finished.

While, as shown, there is little work remaining pertaining to the allotment of land, this might have been fully completed except as to those items dependent upon matters outside of the office, had not the time of the force been largely taken up with work not foreseen or contemplated. Reference is elsewhere made to the work of checking the lists of land advertised for sale for taxes, which was a task of considerable magnitude, as the aggregate number of tracts advertised was probably in excess of 25,000. In addition to this, during the summer of 1909, a careful examination of the records pertaining to the enrollment of Cherokee freedmen was necessary in order to report to the Court of Claims certain information required in connection with the Moses Whitmire case, and during the year all leases on file in the Union Agency, several thousand in number, were checked with the records of this office and new certificates supplied, showing the enrollment status of the lessor and the nature of the allotment of the land, whether homestead or surplus. These matters, together with many others of minor importance, engaged probably half the time of the force of this division during the year.

The principal items of work now in sight to be accomplished during the ensuing year are as follows: The completion of the tract books already referred to. The preparation and issuance of deeds to the tracts reserved from allotment for churches and cemeteries.

Notations on the proper records of the sale of the unallotted lands as this shall progress and the preparation and issuance of deeds to such tracts as are sold. The issuance of deeds and certificates to minor Cherokees enrolled under the act of April 26, 1906, when the case involving their rights is decided, if such decision is in their favor. In the event of an adverse decision these selections must be canceled and the land disposed of in some manner. In the event of a favorable decision in this case rolls must be prepared from which to equalize these allotments.

In addition to these principal items there will be a multitude of smaller matters naturally incident to the closing of a task of so great magnitude and so many complications. Furthermore, the work of the preparation of certified copies of records and that of checking leases and applications for the removal of restrictions with the allotment and enrollment records of this office show no sign of any material decrease.

EQUALIZATION OF ALLOTMENTS.

The act of Congress of March 3, 1909 (35 Stat., 782), provided that allottees of the Cherokee, Choctaw, and Chickasaw nations having remnant allotments due them of not exceeding \$50 in value, shall be paid twice the appraised value thereof in lieu of the amount necessary to complete their allotments.

In accordance with this provision of law, pay rolls were prepared from which to make these payments, and the payment to Cherokees was begun on January 10, 1910, and that to the Choctaw and Chickasaw citizens on March 15, 1910.

The pay roll of the Cherokees contains the names of 35,018 citizens, having due them \$174,814.34, while on the Choctaw and Chickasaw pay roll there are names of 36,849 citizens having due them \$317,997. At the close of the fiscal year there had been paid to 16,006 citizens of the Cherokee Nation on this account \$91,819.16 and to 11,875 Choctaws and Chickasaws \$120,094.34.

Considerable difficulty is encountered in making this payment for the reason that the amounts are so small, being in many instances only a few cents, that persons entitled to such payments are slow in making applications, and in cases where the allottee is dead, if no administrator has already been appointed, the amount involved in this payment is not sufficient to justify the expense of administration, which requires on the part of the office a determination of the heirs before the payment can be made.

In the Cherokee Nation payment is made only to citizens enrolled as of September 1, 1902, on account of the fact that the rights of minors enrolled under the act of April 26, 1906, are involved in suit. Of the citizens enrolled as of September 1, 1902, there remain about 900 whose names do not appear on this pay roll for the reason that they had due them on their allotments more than \$50 or their selections were involved in contest at the time this roll was prepared. The act of April 26, 1906, provides that allotments on which there is due more than \$50 can be equalized and the names of all Cherokees not appearing on the roll already approved have been placed on another roll from which a payment will be made under the provisions of this act.

roadways to remove the timber and for the maintenance of buildings, mills, etc., necessary for the labor.

Under the provisions of these sales relative to rights of way for tramways, railroads, etc., no serious attempts have come to the notice of the office to build a railroad other than small tramways, except in one instance, the provision in the contract of such company reading as follows:

And the party of the first part, in consideration of the payments hereinbefore made, further grants and conveys unto the party of the second part, its successors and assigns, the right of way 100 feet in width, for the purpose of constructing, maintaining, and operating a railroad and tramway across any portion of the said tract, where the line of the railroad of the party of the second part shall be surveyed and finally located. Said right of way shall extend 50 feet on each side of the center line of said railroad.

This company, under a separate contract, termed a lease, attempts to secure for a term of twenty years a strip of land on each side of the center line of the railroad theretofore acquired for the removal of timber, and under these two instruments has commenced the construction of a standard gauge railroad across the lands of restricted allottees.

Pretentious as this railroad appears to be from the part so far constructed, no attempts have been made to acquire the right of way over the land under the Enid and Anadarko act, nor has any incorporation been had under the laws of the State, consequently it will not be a common carrier when completed and will not be required to accept a class of freight that it does not desire.

To this date, the removal of timber under these sales has not been begun for the lack of transportation facilities, and the completion of this railroad will probably mark the putting into execution of many of those unconscionable transactions.

On March 14, 1910, the report of this investigation was made to the department and transmitted for appropriate action to the Department of Justice, where the matter is now pending.

TAXATION OF RESTRICTED LANDS.

The act of Congress approved May 27, 1908 (35 Stat., 312), provides that restrictions may be removed upon the alienation of the land allotted to certain classes of citizens of the Five Civilized Tribes and that the lands upon which the restrictions are so removed should be subject to taxation, and the remaining restricted lands exempt from taxation, until such time as the restrictions should be removed therefrom.

The same act made an appropriation of \$15,000 to enable the Secretary of the Interior to furnish the various counties of the State of Oklahoma certified copies of such portions of the records of the office as affect title to lands in the respective counties, in order that the various counties might be able readily to determine what land had been allotted and from what allotted land the restrictions had been removed. In accordance with this provision of law there was furnished these counties lists of all allotments in the Five Civilized Tribes, in which lists the land was described and the enrollment status of each allottee was given. Notwithstanding all of this, in September, 1909, when the various counties published their lists of

land advertised for sale for nonpayment of taxes, it was found that large numbers of tracts of restricted lands were included. When this fact came to the notice of the office, a careful check was made of all such advertisements, and application was made to the United States court for an injunction restraining the officials of the various counties from selling for nonpayment of taxes any lands in the restricted class. The same condition arose in May, 1910, only even more restricted land was advertised for sale for nonpayment of taxes for the year 1909 than in the first instance. A check of these advertisements was again made and an injunction again secured restraining the sale of these restricted lands. Efforts have been made to prevail upon the county officials to omit such lands from their tax lists and thus prevent the recurrence of this condition.

ILLEGAL CONVEYANCES OF ALLOTTED LANDS.

No further action has been taken by this office in connection with the institution of suits to set aside illegal conveyances of allotted lands prior to the removal of restrictions further than to keep a record of such cases for use should it be determined to file any more such suits, which is not thought advisable until the courts shall have finally passed on the cases already submitted. Of the 27,380 suits filed there were 1,543 dismissed during the past year, which, with the 3,076 dismissed prior to July 1, 1909, makes a total of 4,619.

The grounds upon which these cases were dismissed appear in the following statement:

Quitclaim from grantee	854
Error	620
Adjustment	69
Total	1,543

ALLOTMENT CONTESTS.

On July 1, 1910, the contests involving allotments of land in the Five Civilized Tribes having been practically disposed of the division handling that work was abolished. In all but 2 cases hearings were held and concluded, and of the 10,951 such cases filed before this office all but 53 were finally closed. The following statements show in detail the status of this branch of the work:

Status of allotment contests.

CREEK NATION.

All contests closed.

SEMINOLE NATION.

All contests closed.

CHICKASAW NATION.

Contests pending before the Commission to the Five Civilized Tribes on June 30, 1910:

Awaiting action of the Commissioner of Indian Affairs	4
Held in accordance with departmental instructions of June 17, 1909 (D 7550—1909)	1
Total contests pending June 30, 1910	5

CHOCTAW NATION.

Contests pending before the Commission to the Five Civilized Tribes on June 30, 1910:

Awaiting action of the Commissioner of Indian Affairs.....	1
Total contests pending June 30, 1910.....	1

CHEROKEE NATION.

Contests pending before the Commissioner to the Five Civilized Tribes on June 30, 1910:

Set for trial.....	2
Awaiting time to expire for filing motion to reinstate.....	1
Under advisement on motion for rehearing.....	1
Awaiting time to expire for filing appeal.....	17
Awaiting time to expire for filing reply to appeal.....	4
	25

Contests pending on appeal on June 30, 1910:

Awaiting action of the Commissioner of Indian Affairs.....	9
Awaiting time to expire for filing appeal to the Secretary of the Interior.....	5
Awaiting time to expire for filing reply to appeal.....	2
Awaiting action of the Secretary of the Interior.....	2
Awaiting time to expire for further action.....	3
Held in accordance with departmental instructions of July 22, 1909, pending decision of Supreme Court.....	1
	22
Total contests pending June 30, 1910.....	47

RECAPITULATION.

Total number of contests instituted up to July 1, 1909.....	10,951
Contests instituted between July 1, 1909, and July 1, 1910.....	0
Total.....	10,951
Contests disposed of to July 1, 1909.....	10,643
Contests disposed of from July 1, 1909, to July 1, 1910.....	259
Less contests reinstated.....	4
	255
	10,898
Contests pending July 1, 1910.....	53

PREPARATION AND DELIVERY OF PATENTS.

The preparation and delivery of patents and deeds to allottees in the Choctaw, Chickasaw, Cherokee, and Creek nations have been practically completed up to date, the only deeds not yet issued being those for allotments recently made and a few which were until a recent time involved in contest. The work of preparing and delivering the remaining patents will not require a great deal of time.

The following tabulated statements show in detail the progress of this work during the past year and its status on June 30, 1910:

*Status of work of preparing and delivering Choctaw-Chickasaw patents.***Prepared during year:**

Homestead	895
Allotment	609
Freedmen	328
Homestead, Mississippi Choctaws	100
Allotment, Mississippi Choctaws	142
	<u>1,574</u>

Total prepared to June 30, 1910:

Homestead	26,222
Allotment	34,296
Freedmen	13,225
Homestead, Mississippi Choctaws	1,455
Allotment, Mississippi Choctaws	1,724
	<u>76,922</u>

Delivered during year:

Homestead	588
Allotment	2,037
Freedmen	880
Homestead, Mississippi Choctaws	255
Allotment, Mississippi Choctaws	817
	<u>4,077</u>

Total delivered to June 30, 1910:

Homestead	24,850
Allotment	33,010
Freedmen	12,490
Homestead, Mississippi Choctaws	1,420
Allotment, Mississippi Choctaws	1,601
	<u>73,371</u>

Progress of preparation and delivery of deeds, Cherokee Nation.

	Allotment.	Homestead.	Fractional.	Total.
Deeds prepared prior to July 1, 1909	35,105	35,105	1,713	71,923
Deeds prepared from July 1, 1909, to July 1, 1910	470	470	2,636	3,576
Total to July 1, 1910	35,575	35,575	4,349	75,499
Deeds delivered prior to July 1, 1909	29,591	29,591	792	59,974
Deeds delivered from July 1, 1909, to July 1, 1910	6,300	6,300	3,567	16,167
Total to July 1, 1910	35,891	35,891	4,359	76,141

RECORDING OF DEEDS AND PATENTS.

The following table shows the progress of work of recording deeds and patents during the fiscal year ended June 30, 1910, and the number of deeds and patents recorded prior to that time:

*Progress of work of recording deeds and patents.***Choctaw and Chickasaw homestead and allotment patents:**

Filed prior to July 1, 1909	72,889
Filed during the fiscal year ended June 30, 1910	1,493
Total	<u>73,882</u>

Choctaw and Chickasaw town-lot patents:

Filed prior to July 1, 1909	27,000
Filed during fiscal year ended June 30, 1910	1,394
Total	<u>28,394</u>

The total amount of coal and asphalt mined and the royalty paid thereon by each operator in the Choctaw and Chickasaw nations during the year are shown in the following tables:

Coal mined and royalty paid thereon, Choctaw and Chickasaw nations.

Lessee.	Tons.	Royalty.
Bache & Denman Coal Co.....	4,832	\$386.56
Bolen-Darnall Coal Co.....	54,743	4,379.44
Brewer Coal and Mining Co.....	33,984	2,715.72
Central Coal and Coke Co.....	40,320	3,225.00
Cameron Coal and Mercantile Co.....	0	0
Chambers Coal and Mining Co.....	4,214	337.12
Coalgate Co.....	43,701	3,596.08
Degnan & McConnell.....	57,530	4,602.40
Degnan & McConnell Coal and Coke Co.....	9,999	799.92
Denison Coal Co.....	0	0
Dow Coal Co.....	0	0
Eastern Coal and Mining Co.....	55,254	4,500.32
Folsom-Morris Coal Mining Co.....	17,940	1,435.20
Great Western Coal and Coke Co.....	127,732	10,215.56
Hailey-Ola Coal Co.....	207,100	16,566.00
Harrison, Edwin.....	42,309	3,384.72
Indian Coal and Mining Co.....	29,848	2,387.84
Kali Inla Coal Co.....	77,778	6,222.24
Le Bosquet Coal and Mining Co.....	0	0
Mazzard Coal and Mining Co.....	45,091	3,655.28
Milby & Dow Coal and Mining Co.....	103,593	8,287.44
Missouri, Kansas and Texas Coal Co.....	108,638	8,691.04
Maguire, Robert W.....	232,873	18,629.84
McAlester Coal Mining Co.....	89,785	7,182.80
McAlester Coal and Coke Co.....	0	0
McAlester and Galveston Coal Mining Co.....	2,870	229.60
McAlester-Edwards Coal Co.....	63,153	5,052.24
McMurray, John F.....	1,897	151.76
Osage Coal and Mining Co.....	250,752	20,060.16
Ozark Coal and Railway Co.....	0	0
Poteau Coal and Mercantile Co.....	579	46.32
Rock Island Coal Mining Co. ^b	437,226	34,975.08
Samples Coal and Mining Co.....	37,048	2,965.84
Savanna Coal Co.....	30,313	2,425.04
Sans Bois Coal Co.....	163,911.15	13,112.88
Standard Coal Co.....	0	0
St. Louis-Galveston Coal Mining Co.....	586	46.88
Turkey Creek Coal Co.....	18,784	1,502.72
Western Coal and Mining Co.....	241,306.32	19,304.06
Total	2,692,291.47	215,283.31

* Successor to McAlester Coal Mining Co.

^b Operations of this company carried on under contract on approved leases of Choctaw, Oklahoma and Gulf Railroad Company.

The coal mined this year amounted to 2,692,291 tons, compared with 2,728,437 tons mined in 1909, showing a decrease of 36,146 tons.

The decrease in this year's output, compared with the output of 1909, is due to the suspension of work at all coal mines in the Choctaw Nation, the suspension beginning on April 1, 1910, and being due to the failure of representatives of the operators and representatives of the miners to agree upon a new scale of wages, the old scale having expired March 31, 1910.

The suspension still continues. Representatives of the operators and representatives of the miners have been holding conferences almost continuously since the suspension began, but so far the controversy has not been adjusted. It is now believed, however, that an agreement will be reached not later than the week beginning July 18, 1910.

The following statement shows the total amount of asphalt mined and the total amount of royalty paid thereon by each operator in the Choctaw and Chickasaw nations during the year at 10 cents a ton for the crude asphalt:

Asphalt mined and royalty paid thereon.

Operator.	Tons.	Royalty.
American Mineral Wax Co.....	0	0
Brunswick Asphalt Co.....	3,320.43	\$332.08
Choctaw Asphalt Co.....	2,037	203.70
Downard Asphalt Co.....	424	42.40
Elk Asphalt Co.....	0	0
Farmer Asphalt Co.....	0	0
Gilsonite Roofing and Paving Co.....	263	26.30
Rock Creek Natural Asphalt Co.....	3,068	306.80
Tar Spring Asphalt Co.....	0	0
Total.....	9,107.43	910.73

The asphalt mined in 1910 amounted to 9,107 tons, an increase of 4,986 tons over 1909, when the output was 4,121 tons.

The following statement gives the coal production each fiscal year since the operations were placed under the direction of the Secretary of the Interior and also the revenues derived from coal and asphalt leases in the Choctaw and Chickasaw nations for each year:

Output and revenues from leased lands.

	Output.	Royalty paid.
	<i>Tons.</i>	
Fiscal year ended June 30—		
1909.....	1,404,442	\$110,145.25
1900.....	1,900,127	138,496.40
1901.....	2,398,156	199,868.55
1902.....	2,735,365	247,361.36
1903.....	3,187,035	261,929.84
1904.....	3,198,862	277,811.60
1905.....	2,859,516	248,428.36
1906.....	2,722,200	251,947.02
1907.....	3,079,733	240,199.23
1908.....	2,780,649	273,196.82
1909.....	2,728,437	218,376.07
1910.....	2,692,391	250,161.78

The royalty includes all amounts paid as advance royalty and payments on account of failure to mine the required output of 3,000 tons the first year, 4,000 tons the second year, 7,000 tons the third year, 8,000 tons the fourth year, and 15,000 tons the fifth and each succeeding year thereafter. Therefore the amount of royalty as shown in the statement is not the exact amount which should be paid by computing the royalty at 8 cents per ton on the output.

The suit brought to collect from John F. McMurray certain amounts of advance royalty and certain amount on account of failure to mine the required annual output was heard by the United States court of the eastern district of Oklahoma, and it was held that the regulations of the Secretary of the Interior requiring an annual output prescribed under date of April 27, 1900, did not apply to the leases of McMurray in view of the fact they had been approved prior to the date of such regulations. On June 25, 1910, an act of Congress

was approved granting to the Savanna Coal Company the right to add 200 acres of segregated coal land to its coal lease and granting the Denison Coal Company permission to relinquish 720 acres of land included in its lease and to add to said lease in lieu thereof 960 acres. The said relinquishments and additions had not been consummated at the end of the fiscal year.

The following assignments of coal leases were approved by the Secretary of the Interior on the dates stated: McAlester and Galveston Coal and Mining Company, a partnership, to the McAlester and Galveston Coal Mining Company, a corporation, March 25, 1910; McAlester Coal Mining Company to the McAlester Coal and Coke Company, March 25, 1910.

Of the nine asphalt companies the following have carried on no operation whatever during the year: American Mineral Wax Company, Elk Asphalt Company, Farmer Asphalt Company, Tar Spring Asphalt Company.

The records of the coal and asphalt companies are carefully checked by the mining trustees for the Choctaw and Chickasaw nations, who submit report at the end of each quarter showing the amount mined by each company and the royalty paid thereon. These reports are then carefully checked with the United States Indian superintendent, to whom all payments are made, and where any discrepancies are found the matter is at once taken up with the company and proper adjustment made.

Mr. William Cameron, supervisor of mines, resigned, effective May 11, 1910, stating that on account of advanced age he was unable to properly attend to his official duties. It is not considered necessary to appoint anyone in his place, in view of the fact that the coal operations are under the supervision of the mining trustees, who can attend to the duties performed by Mr. Cameron, except such as come within the jurisdiction of the state mine inspector.

Report of the United States Indian superintendent shows that 1,661 mineral leases covering restricted allotments were filed in his office during the year, making a total of 20,828 of such leases filed up to June 30, 1910. Only 384 leases were pending on June 30, 1910.

Approximately 3,200 oil wells were drilled in the Mid-Continent field during the fiscal year, of which 1,149 were under leases approved by the Secretary of the Interior. About 44,221,000 barrels were marketed during the year, and it is estimated that there were 44,323,583 barrels held in storage on June 30, 1910. The following shows the receipts on account of royalty from oil, gas, and other individual royalties by fiscal years, together with disbursements:

Receipts and disbursements on account of royalties, 1904 to 1910.

Fiscal year.	Receipts.	Disbursements.
1904.....	\$1,300.00	.....
1905.....	91,624.40	\$61,931.38
1906.....	323,565.40	339,279.01
1907.....	775,489.15	679,347.45
1908.....	1,692,627.55	1,685,675.26
1909.....	1,813,460.28	1,802,893.20
1910.....	1,420,894.97	1,301,508.99
	6,118,961.75	5,870,635.29

TOWN SITES.

During the fiscal year 1910 two plats, showing additions to the town of Wilburton aggregating 9.657 acres, and one plat showing an addition of 7.5 acres to the town of Hartshorne on segregated coal land, were approved by the Secretary of the Interior. Authority was also granted to survey and plat land for town-site purposes at Cottonwood and Dow on segregated coal land under the provisions of section 7 of the act of May 29, 1908 (35 Stat., 444). The survey at these towns had been practically completed by June 30, 1910, but the plats had not been submitted for approval.

Thirty supplemental schedules, showing the disposition of town lots which were necessary in order to complete the unfinished work of the town-site commission or correct errors in the original schedules, were submitted for approval. One hundred and one lists of lots, covering 588 lots in 100 towns, upon which payments were delinquent, were prepared, and the department declared the lots and the payments made thereon forfeited.

During the year 1,967 vacant lots and 2,581 forfeited lots were advertised and sold at public auction in the Creek, Cherokee, Choctaw, and Chickasaw nations. The amounts realized from such sales aggregated \$142,591.25. There still remain to be disposed of about 1,219 vacant town lots and 705 forfeited town lots, in addition to a number of lots which were originally reserved for the use of coal companies in their mining operations in various towns within the segregated coal area in the Choctaw Nation.

A total of 306 towns have been surveyed and platted by the Government in the Creek, Cherokee, Choctaw, and Chickasaw nations as follows:

Towns surveyed and platted.

Nation.	Towns.	Acreage.
Creek.....	26	10,694.10
Cherokee.....	54	9,531.47
Choctaw.....	95	20,121.061
Chickasaw.....	131	23,822.82

The following statement shows the amount received by the United States Indian superintendent as payments on town lots by fiscal years:

Receipts from town lots.

	Creek.	Cherokee	Choctaw and Chickasaw.	Total.
Fiscal year ended June 30—				
1900.....		\$74.02	\$11,139.48	\$11,213.50
1901.....		10.02	25,090.91	25,100.93
1902.....	\$80,536.56		157,188.83	237,725.39
1903.....	211,410.22	21,286.40	337,427.21	570,123.83
1904.....	108,479.47	73,568.24	274,574.22	554,621.72
1905.....	105,579.47	139,389.74	541,749.55	786,718.76
1906.....	149,049.53	244,450.74	581,728.65	975,228.92
1907.....	22,701.96	146,582.23	389,589.61	558,873.80
1908.....	21,636.87	93,087.94	249,134.19	364,458.70
1909.....	11,030.82	28,858.05	89,049.20	128,938.07
1910.....	6,844.84	12,837.30	67,388.07	87,068.21

Patents are prepared conveying town lots as soon as full payment is made, and after being executed and recorded are delivered to the grantees. During the fiscal year 1910 the following town-lot patents were prepared, as many lots as practicable being included in one deed where running to the same person:

Choctaw and Chickasaw nations.....	1,377
Cherokee Nation.....	305
Creek Nation.....	749

There remain two contest cases involving town lots which have not been finally disposed of. One is pending before the Secretary of the Interior on appeal; the other has been heard, but decision not yet rendered.

DISTRICT AGENTS.

After a trial of two years the usefulness of the district agency service has been fully demonstrated, and by reason of the large number of Indians, the extent of country, and complicated conditions existing, their services are indispensable to the protection of the interests of the restricted citizens of the Five Civilized Tribes.

The primary object of this service was for the protection of minor allottees of the Five Civilized Tribes. In the performance of this duty the district agents met with some embarrassment by the erroneous impression, prevalent throughout the country, that, as federal representatives, they sought to usurp the prerogative of the state officials. As their true object became known this feeling has been overcome, and in 27 counties there is an earnest and conscientious cooperation between the probate courts and the district agents; in 3 counties it is only partial, while in 10 counties the courts not only fail to ask assistance of the district agents, but appear to resent any appearance they make on behalf of minors. It is needless to state that from the class of counties last mentioned comes the great majority of complaints of mismanagement of estates, charges against the probate courts, and investigations by the state officials.

The complaints became so numerous and the alleged frauds appeared so flagrant that it became necessary to employ a special assistant to the Attorney-General for the Seminole Nation for the purpose of assisting these allottees.

In addition to probate matters, the duties of district agents include the adjustment of intruder cases, the handling of mineral, agricultural, and grazing leases, the rendition of assistance to the Department of Justice in connection with the investigation and adjustment of suits to clear titles, the investigation of matters of minor importance for this office, the investigation of the execution of deeds by full-blood heirs where the allottee died prior to May 27, 1908, and the appraisement of land from which restrictions had been removed by special action of the Secretary of the Interior, together with the appraisement of land whenever requested by the probate court in some matter pending before it. An enumeration, without attempting to show the necessary work to complete each case, is shown below:

Work done by district agents.

Verbal reports in probate matters under section 6, act of May 27, 1908	587
Report to superintendent, miscellaneous probate matters.....	587
Probate complaints filed.....	1,261

Probate complaints disposed of.....	1, 213
Lease complaints filed.....	1, 753
Departmental leases forwarded to superintendent.....	507
Applications for removal of restrictions forwarded superintendent.....	1, 670
Applications for removal of restrictions filed.....	327
Intruder complaints disposed of.....	285
Amount of money saved for Indian allottees by district agents.....	\$391, 613. 40

There are three supervising district agents, one for the office and two for the field. The duties of this branch of the service are so manifold that no attempt can be made to enumerate them. However, the field supervisors are principally occupied by legal matters, and the benefits of their successes in appearing for restricted Indians who, in remote districts, have been sued under many claims without any foundation whatever, have been so far-reaching as to operate greater than any other action in reconciling the heretofore disaffected class to the conditions of the severance of tribal relations.

The reports heretofore made of the successes of this system are reiterated, but the efficiency would be raised to a remarkable extent by an increase in the force, which would allow more deliberate consideration and closer attention to individual matters.

SCHOOLS.

The annual report of Oscar H. Lipps, supervisor in charge, is transmitted herewith. Mr. Lipps assumed charge of the schools in the Five Civilized Tribes on January 10, 1910, relieving John D. Benedict, superintendent of schools. Mr. Walter Falwell, supervisor of schools of the Creek and Seminole nations; Mr. Calvin Ballard, supervisor of schools of the Choctaw Nation; and Mr. Frederick H. Umholtz, supervisor of schools of the Chickasaw Nation, were also relieved on the same date.

Mr. Lipps states that it has been decided, in view of the dilapidated condition of many of the school buildings, to abandon part of the same and repair and properly equip the remaining schools, and introduce in the course of study the subjects of agriculture, manual training, domestic science, etc. The school work in each nation is discussed below.

The total cost of maintaining the schools was \$412,065.78 during the fiscal year 1910, as compared with \$578,594.03 during the year 1909.

During the year the Cherokee Male Seminary near Tahlequah was destroyed by fire. From Mr. Lipps's report it appears that one boarding school in the Cherokee Nation, three in the Creek Nation, and three in the Chickasaw Nation were to be abandoned. Arrangements have also been made by which Indian pupils in the restricted classes, which requires that they be of three-fourths or more Indian blood, may be enrolled as pupils in the Haskell Institute at Lawrence, Kans.

CHOCTAW NATION.

Four tribal boarding schools were maintained with an enrollment of 674, and 291 pupils were enrolled in contract boarding schools, the total cost for the 965 pupils enrolled in boarding schools being \$98,738.83. One hundred and sixty-one day schools were maintained or assisted, in which there were enrolled 584 Indian pupils, 5,153 white pupils, and 502 negro pupils, making a total of 6,239

enrolled in day schools, at a cost of \$26,098.36. The total enrollment was 7,204 at the total cost, including \$600 expenses incurred in the supervisor's office, of \$125,437.19. During the fiscal year 1909 the total enrollment in this nation was 15,821, at a cost of \$157,491.47.

CHICKASAW NATION.

Five tribal boarding schools were maintained, with an enrollment of 517. One hundred and six Chickasaws were enrolled in contract boarding schools, making a total enrollment in boarding schools of 623 at a cost of \$57,866.08, to which should be added \$1,089.22 expense incurred in the supervisor's office, making a total cost of \$58,955.30. One hundred and forty-eight day schools were maintained or assisted in the Chickasaw Nation, in which there were enrolled 323 Indians, 7,042 whites, and 537 negroes, making a total enrollment in day schools of 7,902, at a cost of \$24,550.04. The total enrollment in the Chickasaw Nation was 8,525, at a cost of \$83,505.34. During the fiscal year 1909 the total enrollment was 16,990, at a cost of \$134,661.49.

CHEROKEE NATION.

Three tribal boarding schools were maintained with an enrollment of 377; the total cost, including \$321.75 expenses incurred in the supervisor's office, was \$32,774.95. One hundred and forty-nine day schools were maintained or assisted, in which there were enrolled 1,681 Indians, 3,161 whites, and 209 negroes, making a total enrollment in the day schools of 5,051, at a cost of \$23,625.01. The total enrollment in the Cherokee Nation was 5,428, at a cost of \$56,399.96. During the fiscal year 1909 the total enrollment was 12,781, at a cost of \$118,444.11.

CREEK NATION.

Seven tribal boarding schools were maintained, with an enrollment of 869, at a cost, including \$967.45, expenses incurred in the supervisor's office, of \$77,658.18. One hundred day schools were maintained or assisted, in which there were enrolled 216 Indians, 1,699 whites, and 2,412 negroes, making a total enrollment in the day schools of 4,327, at a cost of \$16,189.97. The total enrollment in the Creek Nation was 5,196, at a cost of \$83,848.15. During the fiscal year 1909 the total enrollment in the Creek Nation was 10,667, at a cost of \$114,639.50.

SEMINOLE NATION.

Two tribal boarding schools were maintained, with an enrollment of 254, at a cost of \$22,389.07, including \$853.02 expenses incurred in the office of the supervisor. Nine day schools were maintained, with an enrollment of 12 Indians, 211 whites, and 163 negroes, making a total enrollment in the day schools of 386, at an expense of \$1,444.99. The total enrollment in the Seminole Nation was 640, at a cost of \$23,844.06. During the fiscal year 1909 the total enrollment was 1,265, at a cost of \$27,639.94.

TRIBAL REVENUES.

Section 11 of the act of Congress approved April 26, 1906 (34 Stats., 137), provides in part as follows:

That all revenues of whatever character accruing to the Choctaw, Chickasaw, Cherokee, Creek, and Seminole tribes, whether before or after dissolution of the

tribal governments, shall after the approval hereof be collected by an officer appointed by the Secretary of the Interior under rules and regulations to be prescribed by him; and he shall cause to be paid all lawful claims against said tribes which may have been contracted after July first, nineteen hundred and two, or for which warrants have been regularly issued, such payments to be made from any funds in the United States Treasury belonging to said tribes. All such claims arising before dissolution of the tribal governments shall be presented to the Secretary of the Interior within six months after such dissolution, and he shall make all rules and regulations necessary to carry this provision into effect, and shall pay all expenses incident to the investigation of the validity of such claims or indebtedness out of the tribal funds.

Under such provision the United States Indian superintendent was designated by the Secretary of the Interior as the officer to receive all revenues due the tribes. This office has jurisdiction of matters pertaining to tribal land and property and supervises the matter of collecting revenues therefrom. Moneys received from this source are not taken up and deposited by the superintendent until receipt of report from this office. As soon as the land is allotted jurisdiction of matters pertaining thereto passes to the office of the United States Indian superintendent if the land is restricted, and if unrestricted it passes beyond the jurisdiction of the department entirely, except in an advisory capacity.

During the year two grazing-fee inspectors have been employed, together with such assistants as were needed during a portion of the year, in collecting grazing fee or rental for the use of unallotted land in the Five Civilized Tribes, and also the segregated coal and asphalt land in the Choctaw and Chickasaw nations. The remittances, after being carefully checked in this office, are transmitted to the United States Indian superintendent to be deposited to the credit of the proper tribe or tribes.

There has been but little resistance to the collection of these fees by the occupants of the land, although it has been necessary in a few instances to remove persons who refuse to make payment. Remittances were received from this source from 4,125 persons, aggregating \$100,790.69, distributed as follows:

Cherokee Nation-----	\$19. 60
Creek Nation-----	1, 054. 61
Seminole Nation-----	98. 70
Choctaw and Chickasaw nations (unallotted land)-----	89, 981. 09
Choctaw and Chickasaw nations (segregated coal and asphalt lands)-----	59, 136. 69
	100, 790. 69

Under the clause of the Indian appropriation act approved April 30, 1908, providing that the Secretary of the Interior shall take possession of all tribal buildings on lands belonging to the Five Civilized Tribes, together with the furniture therein, and the land appertaining thereto, and appraise and sell the same when in his discretion it is advisable to do so, and to lease the same if desirable until they are disposed of, the following sales and leases were made:

Sales and leases of tribal buildings.

SALES.

Cherokee Orphan Asylum, land (120 acres)-----	\$2, 340. 00
Court-house at Red Oak, Choctaw Nation-----	428. 00
Court-house at McAlester, Choctaw Nation-----	360. 00
Court-house at Caddo, Choctaw Nation-----	600. 00
Mayhew court-house, Choctaw Nation-----	40. 00

Sugar Loaf court-house, Choctaw Nation-----	\$20. 00
Jack Fork court-house, Choctaw Nation-----	5. 00
Alikchi court-house, Choctaw Nation-----	85. 00
Atoka court-house, Choctaw Nation-----	300. 00
Kinta court-house, Choctaw Nation-----	106. 00
Court-house at Stonewall, Chickasaw Nation-----	42. 00
Chickasaw capitol building at Tishomingo-----	7, 500. 00
Bell of capitol grounds at Tishomingo-----	51. 50
Creek Colored Orphan Home-----	4, 500. 00
Wealaka Boarding School, Creek Nation-----	2, 075. 00
Two houses on segregated coal land-----	350. 00
Three blacksmith shops and tools, Seminole Nation-----	192. 60

LEASES.

National jail building at Tahlequah, Cherokee Nation, per month-----	20. 00
Creek capitol building at Okmulgee, per month-----	100. 00
Creek Colored Orphan Home, up to date of sale, per month-----	75. 00

The following land was acquired by the St. Louis and San Francisco Railroad Company under the provisions of section 14 of the act of April 26, 1906 (34 Stat., 137) :

1.55 acres in the Cherokee Nation-----	\$46. 50
15.46 acres in the Choctaw Nation-----	231. 90

The Washita Electric Power Company acquired 112.8 acres of tribal land in the Chickasaw Nation under section 25 of the act of April 26, 1906 (34 Stat., 137), for \$1,410.

The following tribal land was sold under the provisions of section 16 of the act of April 26, 1906 (34 Stat., 137) :

40 acres in the Chickasaw Nation to the State of Oklahoma-----	\$600. 00
80 acres in the Choctaw Nation to the city of Hugo-----	350. 00

The following land was acquired as provided by law under condemnation proceedings:

40 acres near town of Lehigh for waterworks-----	\$900. 00
1,566.04 acres near McAlester for state penitentiary-----	15, 680. 40
8.9 acres near McAlester by Choctaw Railway and Lighting Company for right of way-----	222. 50

During the year 140 applications were received under section 10 of the act of May 29, 1908, for not exceeding 2 acres of tribal land for school sites. Practically all this land had been appraised at the end of the fiscal year with a view to selling it to the school districts.

All warrants drawn by tribal authorities of the Five Civilized Tribes for salaries of tribal officers and other expenses of their governments are submitted direct to this office for examination and approval and are not circulated; after approval they are transmitted to the United States Indian Superintendent at Union Agency, who issues his official check in payment thereof.

ALIENATION OF ALLOTMENTS.

The report of the superintendent shows that 5,732 applications were filed during the year by allottees of the Choctaw, Chickasaw, Cherokee, Creek, and Seminole nations for the removal of restrictions on land allotted to them; 2,004 applications, affecting 64,146.96 acres, were approved conditionally, the land to be advertised and sold under the direction of the superintendent; 1,331, affecting 76,684.47 acres, were approved unconditionally; the total area from which restrictions were removed was 140,831.43 acres.

The United States Indian superintendent's report also shows that 350 applications were made for the approval of deeds conveying inherited land.

Six hundred and twenty-nine tracts of land, aggregating 53,192.75 acres, were advertised and sold by the superintendent during the year, the consideration received being \$566,666.57. During the year a change was made in the method of advertising these lands so as to show the appraisement of the land in the advertisement.

DRILLING ON SEGREGATED COAL LAND.

The Indian appropriation act of June 21, 1906 (34 Stat., 195), contained the following provision:

That the Secretary is hereby authorized and directed to make practical and exhaustive investigation of the character, extent, and value of the coal deposits in and under the segregated coal lands in the Choctaw and Chickasaw nations, Indian Territory, and the expense thereof, not exceeding the sum of fifty thousand dollars, shall be paid out of the funds of the Choctaw and Chickasaw nations in the Treasury of the United States: *Provided*, That any and all information obtained under the provisions of this act shall be available at all times for the use of the Congress and its committees.

Under said act, drilling of test holes on these segregated lands commenced in the fall of 1908 and was completed in June, 1909. Thirty-seven holes, ranging in depth from 113 to 1,510 feet, were drilled, and also considerable information was secured from coal operators, who had prospected on these lands. The data secured from these operations, and from coal operators, were carefully studied by William Cameron, supervisor of mines, and the mining trustees of the Choctaw and Chickasaw nations, and report submitted as to the land which was considered underlain with coal, the thickness of the veins, etc. These reports are embodied in Senate Document No. 390, Sixty-first Congress, second session.

Mr. Cameron submitted two reports concerning the estimated acreage and value of coal deposits, one dated July 31, 1909, and the other November 5, 1909. These reports show the total workable area of coal on segregated lands to be 283,649 acres on July 1, 1908, and the estimated value of deposits alone, not including the surface of the land, \$12,319,039.

The correspondence and data concerning the drilling operations and the estimated acreage and value of the coal deposits are contained in Senate Document No. 390, Sixty-first Congress, second session.

Very respectfully,

J. GEO. WRIGHT,
Commissioner to the Five Civilized Tribes.

THE SECRETARY OF THE INTERIOR.

REPORT OF THE UNITED STATES INDIAN SUPERINTENDENT AT UNION AGENCY.

MUSKOGEE, OKLA., July 27, 1910.

The annual report of the business transacted at the Union Agency, Muskogee, Okla., for the fiscal year ended June 30, 1910, is respectfully submitted.

GENERAL STATEMENT.

To the end that the work devolving upon this office may be handled most expeditiously, the office force is organized along lines which are best calculated to serve this purpose. The work naturally divides itself into broad general divisions, which may be classified as the executive force, by whom all matters of policy relating to the management of affairs generally are determined; the routine work of the office, which is under the general supervision of the chief clerk and is apportioned among the various divisions; the field work, consisting of the district agency service, land appraisers, oil inspectors, and field clerks employed on special work; and the financial department, where all detail matters of finance are handled. Experience has demonstrated that the organization along the lines suggested is best adapted to the character of the work to be done, insuring, as it does, the fullest consideration of every phase of a subject before action is taken.

By means of a system of individual reports rendered monthly by all office employees, it is possible at any time to determine with a fair degree of accuracy the relative value of the services of each employee, as well as to ascertain his or her qualifications for a particular class of work. This system has been found to be a great aid in the placing of employees in positions where the most satisfactory and efficient service can be rendered.

During the year there have been employed at the agency 134 adult Indian citizens who have occupied positions both in the office and in the field, many of them performing work requiring a high degree of discretion. The total amount paid in salaries to this class of employees during the year amounts to \$27,482.28. Considering the number of Indians employed and the character of work performed by them, it may be said that their employment has proved beyond question that they may be depended upon to perform efficient service in any branch of the work.

CASHIER'S OFFICE.

All incoming mail is received and opened in the cashier's division and all money received in such mail is there retained and accounted for. This system eliminates the possibility of any money being handled by persons other than bonded employees. Inasmuch as prac-

tically all of the funds received by this office come through the mails, it is apparent that the danger of money going astray or being unaccounted for is reduced to the minimum. It is probable that in no other division is there such a volume of miscellaneous items requiring immediate attention, and in order that every item may be handled with the greatest dispatch consistent with accuracy, a thorough, up-to-date system of bookkeeping is in vogue, all of which is in charge of competent employees who are under bond and are thoroughly familiar with the work which they are required to perform.

During the year the total receipts passing through the cashier's office amounted to \$2,562,736.27, representing 44,895 separate remittance entries.

Owing to the great volume of detail work occasioned by the receipt and disbursement of moneys at the Union Agency, commencing with the new fiscal year the cashier of the agency has been made an officer bonded to the United States and designated a special disbursing agent and will hereafter handle the funds in his own name, under the supervision of the superintendent, thereby relieving the superintendent of the burdens of the accounting details. This change will be a decided improvement in administration.

ACCOUNTS DIVISION.

The total amount of money passing through the agency for the year was \$4,746,700.94, of which \$2,562,736.27 was collected and \$2,183,964.67 disbursed.

The accounts division also paid 14,459 royalty vouchers, 4,400 land-sale vouchers, and 1,907 regular disbursement vouchers, a total of 20,766, as compared with 19,999 last year.

Receipts and disbursements for the fiscal year ending June 30, 1910.

RECEIPTS.

Choctaw Nation:	
Town lots	\$50,539.55
Coal royalties	185,221.97
Asphalt royalties	2,399.32
Timber royalties	13,182.48
Rental segregated coal and asphalt lands.....	44,352.50
Rental unallotted lands.....	29,985.84
Sale unallotted lands for school purposes.....	1,133.25
Sale unallotted lands for park purposes.....	450.00
Sale unallotted lands for waterworks.....	262.50
Sale condemned lands for road purposes.....	87.78
Sale improved segregated lands.....	262.50
Sale town lots for school purposes.....	56.25
Sale court-house sites.....	861.75
Sale improvements on town lots.....	112.50
Redeposit of refund on town lots, Hartshorne..	30.00
Sale capitol building site, Tishomingo.....	375.00
Sale court-house buildings.....	333.27
Sale town lots for court-house site.....	34.30
Condemned lands for waterworks.....	887.25
Condemned lands for railway purposes.....	605.72
Sale segregated coal and asphalt lands for right of way.....	166.88
Sale unallotted lands for railway purposes	173.93
Sale of stone.....	13.31
Telephone damages	45.00
Refund of court costs.....	832.00
Town-site fund, sale of maps.....	30.74

\$332,485.50

Chickasaw Nation:

Town lots.....	\$16,846.52
Coal royalties.....	61,740.67
Asphalt royalties.....	799.80
Timber royalties.....	4,394.15
Rental segregated coal and asphalt lands.....	14,784.19
Rental unallotted lands.....	9,995.25
Sale unallotted lands for school purposes.....	377.75
Sale unallotted lands for park purposes.....	150.00
Sale unallotted lands for waterworks.....	87.50
Sale condemned lands for road purposes.....	29.28
Sale improved segregated lands.....	87.50
Sale town lots for school purposes.....	18.75
Sale court-house sites.....	287.25
Sale improvements on town lots.....	37.50
Redeposit of refund on town lots, Hartshorne.....	10.00
Sale capitol building site, Tishomingo.....	125.00
Sale capitol building, Tishomingo.....	7,000.00
Recovery of part of deposit in defunct bank of Chickasaw Nation, Tishomingo, by former treasurer of said nation.....	866.98
Interest on above deposit.....	206.91
Sale court-house buildings.....	30.00
Sale town lots for court-house site.....	11.43
Condemned lands for waterworks.....	295.75
Sale national bell, Tishomingo.....	51.50
Condemned lands for railway purposes.....	201.91
Sale segregated coal and asphalt lands for right of way.....	55.62
Sale unallotted lands for railway purposes.....	57.97
Sale of stone.....	4.44
Telephone damages.....	15.00
Town-site fund, sale of maps.....	20.91

\$118,089.51

Cherokee Nation:

Town lots.....	12,837.30
Rentals unallotted lands.....	19.60
Sale of unallotted lands for railway purposes.....	46.50
Sale of unallotted lands for school purposes.....	140.00
School fund, board of pupils.....	2,540.00
Rent of jail, Tahlequah.....	360.00
Sale of timber.....	15.00
Condemned lands for railway purposes.....	40.00
Sale of orphan asylum.....	2,340.00
Town-site fund, sale of maps.....	1.50

18,339.90

Creek Nation:

Town lots.....	6,844.84
Stipulated judgments, town-lot suits.....	37,950.00
Rental unallotted lands.....	1,054.61
Rent of Creek Orphanage.....	40.00
Sale of Creek Orphanage.....	4,500.00
Sale of Wealaka School.....	2,075.00
Sale of unallotted lands for school purposes.....	25.00
Sale of timber.....	22.50
Town-site fund, sale of maps.....	32.55
Condemned lands for railway purposes.....	8.80
Refund of court deposit, Toney Matney case.....	4,320.08
Interest on above.....	255.72

57,129.10

Seminole Nation:

Rentals unallotted lands.....	98.70
Sale of lands for school purposes.....	30.00

128.70

Individual Indian moneys:**Royalties—**

Oil and gas leases.....	\$1,353,544.46
Coal and asphalt leases.....	11,824.78
Agricultural leases.....	1,197.98
Brick leases.....	373.27
Grazing leases.....	2,447.50
Lead and zinc leases.....	72.00
Stone.....	30.00
Bonus.....	47,261.50
Overpayment advance royalty.....	4,143.53
Pipe-line damages.....	2,842.76
Telephone damages.....	337.64
Land sale bids.....	600,248.91
Interest individual Indian bank accounts.....	7,301.38
Redeposit individual Indian bank accounts.....	1,754.61
	\$2,033,380.27

Miscellaneous:

Sale of town-site maps.....	162.00
Sale of lease blanks.....	2,578.00
Sale of certified copies, etc.....	493.20
	3,233.20

Total moneys actually received.....	2,562,736.27
Amount received by superintendent to cover disallowances.....	11.83
Received by Treasury warrants on requisitions.....	587,478.75

Total..... 3,100,226.85

Balances carried over from previous fiscal year:

Individual Indian moneys—royalties.....	159,690.35
Individual Indian moneys—land sales.....	211,281.41
Overpayments on advance royalty.....	1,457.85
Pipe-line damages.....	1,605.15
Telephone damages.....	50.83

Grand total..... 3,474,311.44

DISBURSEMENTS.**Congressional appropriations:****"Incidentals in Oklahoma, including employees, 1910"—**

Salaries of regular employees.....	\$16,387.21
Traveling expenses of regular employees.....	653.71
Salaries of temporary employees.....	196.62
Printing, binding, and miscellaneous purchases.....	653.63
Repairing and sundry expenses.....	1,530.77
	\$19,421.94

"Removal of intruders, Five Civilized Tribes"—

Salaries of regular employees.....	11,944.50
Traveling expenses of regular employees.....	1,300.68
Per diem and traveling expenses of Indian police.....	8,288.59
Binding and miscellaneous purchases.....	80.15
	16,613.92

"Removal of restrictions allotted lands, Five Civilized Tribes"—

Salaries of regular employees.....	13,998.00
Traveling expenses regular employees.....	1,268.97
Printing and miscellaneous purchases.....	267.74
	15,534.71

"Appraisal and sale of restricted lands, Five Civilized Tribes"—

Salaries of regular employees.....	18,766.33
Traveling expenses regular employees.....	4,896.84
Printing land-sale posters.....	689.60
Miscellaneous purchases and printing.....	398.05
	24,750.82

Congressional appropriations—Continued.

"Sale of inherited and other lands, Five Civilized Tribes"—

Traveling expenses of regular employees.....	\$43. 01
Printing	136. 00

\$179. 01

"Leasing of mineral and other lands, Five Civilized Tribes"—

Salaries of regular employees.....	22, 562. 01
Traveling expenses regular employees.....	3, 248. 48
Salary and traveling expenses of commissioned oil inspector.....	2, 821. 70
Salaries of temporary employees.....	668. 17
Traveling expenses temporary employees.....	219. 61
Printing, binding, and miscellaneous purchases	746. 90
Rents.....	90. 00
Repairs	86. 00

30, 392. 87

"Clerical and other expenses, town lots, Union Agency"—

Salaries of regular employees.....	5, 300. 00
Traveling expenses regular employees.....	388. 72
Printing, binding, and miscellaneous purchases	91. 32

5, 780. 04

"Contingencies, Indian Department, 1910"—

Salaries of temporary employees.....	101. 90
Traveling expenses, regular employees.....	373. 27
Printing, binding, and miscellaneous purchases.....	420. 47
Miscellaneous expenses.....	281. 86

1, 177. 50

"Commission Five Civilized Tribes"—

Salaries of regular employees.....	19, 355. 84
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"Telegraphing, transportation, etc., Indian supplies"—

Telegrams and long-distance telephone messages.....	847. 90
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"Industrial work and care of timber, 1910-11"—

Salaries of regular employees.....	80. 00
Traveling expenses, regular employees.....	49. 40

129. 40

"Protecting property interests of minor allottees, Five Civilized Tribes, 1909 and 1910"—

Salaries and traveling expenses of district agents and assistants.....	60, 547. 91
Traveling expenses of regular employees.....	219. 88
Salaries of temporary employees.....	7, 632. 25
Traveling expenses of temporary employees.....	2, 684. 82
Traveling expenses of Indian police.....	3, 200. 05
Printing and miscellaneous purchases.....	570. 20
Repairs and sundry expenses.....	624. 10
Office rents.....	3, 334. 83

78, 814. 04

"Protecting property interests of minor allottees, Five Civilized Tribes, 1910 and 1911"—

Salaries of district agents and assistants.....	1, 350. 00
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"Pay of superintendent".....

4, 500. 00

"Pay of Indian police".....

8, 208. 83

"Buildings at agencies and repairs, 1910"—

Agency rent	6, 596. 16
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Indian moneys, proceeds of labor:

Choctaw royalties—			
Salaries of regular employees.....	\$2,383.33		
Traveling expenses, regular employees.....	22.45		
Salaries and traveling expenses of temporary employees.....	519.21		
Per diem of Indian police.....	921.00		
Tribal warrants.....	31,928.26		
Reimbursement for lost check of tribal treasurer.....	310.00		
Miscellaneous purchases.....	240.00		
			\$36,324.25*
Chickasaw royalties—			
Salaries of regular employees.....	2,100.00		
Salaries and traveling expenses of temporary employees.....	254.25		
Per diem of Indian police.....	652.00		
Tribal warrants.....	1,144.18		
Miscellaneous purchases.....	160.00		
			4,310.43
Cherokee royalties—			
Salaries of regular employees.....	960.00		
Salaries and traveling expenses of temporary employees.....	137.18		
Per diem of Indian police.....	111.00		
Printing and sundry expenses.....	64.60		
			1,272.68
Cherokee town lots—			
Per diem of Indian police.....	230.00		
Sidewalk around capitol square, Tahlequah.....	898.50		
Per capita payment to intermarried whites.....	69,051.21		
			70,167.71
Creek cattle tax—			
Salaries of regular employees.....			1,800.00
Creek royalties—			
Salaries and traveling expenses temporary employees.....	19.56		
Tribal warrants.....	639.89		
Expenses town-lot suits.....	204.91		
Per diem of Indian police.....	33.00		
Road damages.....	30.00		
Refund grazing fee.....	3.60		
			930.96
Creek town lots—			
Traveling expenses of regular employees.....	23.88		
Per diem of Indian police.....	370.00		
Expenses town-lot suits.....	2,067.39		
Refund town-lot payments.....	62.88		
Recording fees.....	4.25		
			2,528.45
Choctaw-Chickasaw town lots—			
Salaries of regular employees.....	4,037.83		
Expenses of reappraising town sites.....	2,324.67		
Survey of town sites on segregated lands.....	1,129.75		
Refunds on Hartshorne lots.....	438.74		
Printing and sundry expenses.....	61.97		
			7,992.96
Choctaw-Chickasaw royalties—			
Salaries of regular employees.....	6,581.25		
Traveling expenses of regular employees.....	259.63		
Salaries of temporary employees.....	1,266.65		
Traveling expenses of temporary employees.....	477.01		
Per diem and traveling expenses of Indian police.....	8,166.56		
Traveling expenses account collection of revenues.....	1,754.86		
Salaries and traveling expenses of commissioned grazing-fee collectors.....	5,432.81		
Salary and expenses of supervisor of mines.....	2,271.25		

Indian moneys, proceeds of labor—Continued.

Choctaw-Chickasaw royalties—Continued.

Refund of grazing fee.....	\$652.65
Refund of timber royalty.....	42.20
Refund for improvements town lots.....	155.00
Office rent.....	120.00
Payment for improvements on segregated coal and asphalt lands.....	6,635.75
Printing and miscellaneous purchases.....	70.25
Repairs and sundry expenses.....	135.40

\$34,021.27

Tribal Indian moneys:

Interest Chickasaw national fund—

Tribal warrants..... 15,331.54

Interest Cherokee national fund—

Tribal warrants..... 11,877.64

Cherokee outlet fund—

Strip payment..... 265.70

Interest Creek general fund—

Tribal warrants..... \$18,590.00

Expenses town-lot suits..... 724.00

Street paving around capitol at Okmulgee... 6,235.81

25,549.81

Interest Seminole general fund—

\$20 per capita payment and expenses..... 33,453.99

Tribal warrants..... 4,666.61

38,120.60

Fulfilling treaties with Seminoles:

\$20 per capita payment..... 15,200.00

Miscellaneous:

Individual Indian moneys—

Lease royalties..... \$1,301,508.99

Overpayments on advanced royalty..... 4,809.85

Pipe-line damages..... 2,731.68

Telephone damages..... 93.47

Land sales..... 304,088.77

Land-sale bids returned..... 65,499.29

1,678,722.05

Collections on judgments, Creek town-lot suits:

Expenses paid..... 3,795.00

Sale of lease blanks:

Printing and miscellaneous purchases..... 1,612.64

Certified copies, etc.:

Salaries temporary employees..... 488.00

Total actual disbursements..... 2,183,964.67

Deposited Indian moneys to credit of various tribes..... 522,327.80

Deposited account sale of town-site maps..... 162.00

Deposited account sale of lease blanks..... .38

Deposited account sale of certified copies, etc..... 5.20

Deposited account of disallowances..... 11.83

Deposited to reimburse "Individual Indian moneys, proceeds of

labor, Cherokee"..... 518.37

Deposited to reimburse "Individual Indian moneys, proceeds of

labor, Creek"..... 446.61

Deposited to reimburse appropriations..... 337.40

Deposited unexpended balances..... 37,794.37

Balances on hand June 30, 1910:

Individual Indian moneys—

Lease royalties..... \$274,932.80

Pipe-line damages..... 1,716.23

Telephone damages..... 294.50

Land-sale bids..... 32,566.04

Land-sale accounts..... 418,442.21

Overpayments on advance royalty..... 791.03

728,742.81

Grand total..... 3,474,311.44

MAILING DIVISION.

During the fiscal year there were received 3,673 departmental and 71,185 miscellaneous letters. In addition to the foregoing there were received approximately 29,634 vouchers, statements, circulars, and so forth, which were not numbered as letters, making a grand total of 104,492 pieces of incoming mail.

There were dispatched from this office during the fiscal year 6,393 departmental and 142,079 miscellaneous letters, a total of 149,472 pieces, and there were also sent out approximately 53,534 pieces of mail, consisting of vouchers, statements, circulars, and so forth, which were not numbered, and which, added to the regular outgoing letters, makes a total of 203,006 pieces for the year. The total number of pieces of mail handled by this office, incoming and outgoing, amounts to 307,498.

Notwithstanding the great volume of mail as indicated by these figures, the letters on hand unacted upon at the close of the fiscal year, as shown by the records of the mailing division, amount to only 1,079, or 0.0144 per cent of the letters received during the year. From these figures it is apparent that the work of the office in all departments is current. The small number of letters remaining on hand are of such a nature that it is practically impossible to dispose of them until some action is taken either by the department or by persons who are interested in the subject-matter.

TYPEWRITER DIVISION.

The practicability of maintaining a separate division for general stenographic work has been again thoroughly demonstrated during the past year. The typewriter division is composed of stenographers and typewriters who are familiar with all branches of the work. A vast amount of routine work from all branches of the office is turned into this division, where it is handled promptly and expeditiously without interfering with the current work of the division. It is also a very advantageous plan for the handling of work requiring immediate attention. In such cases the entire force of the division can be directed to the completion of the particular piece of work, and the same can be gotten out without appreciable loss of time and without seriously interfering with the general run of work.

FIELD DIVISION.

The field organization has remained the same as the year previous, the 40 counties in the Five Civilized Tribes being divided into 15 districts with 1 district agent in charge, giving to each district over 6,000 tribal members, at least 2,000 of whom are Indians still within the restricted class. The second year of the district agency work was even more successful than the first, not only in the amount of money saved allottees, but also in educating and training Indian citizens by counsel and advice not to enter into inequitable and illegal transactions concerning their allotted and inherited lands.

At the close of the first year of this work it was, to a certain extent, congested. During the second year this congestion has been considerably relieved, and while the district agency force is not yet

adequate to take care of the work, most matters can be given the required attention within a reasonable time. This is especially true as to applications for removal of restrictions and the consequent sale of lands.

It has been possible during the year to give much attention to probate matters, thus relieving conditions materially, especially with reference to the checking and adjusting of guardianship matters of minor allottees. Such matters were, during the past year, more closely looked after than heretofore and the district agency force has been able to cooperate more closely with the county judges and county and state authorities. In this connection especial mention should be made of the active and effective cooperation of Miss Kate Barnard, state commissioner of charities and corrections, in connection with guardianship cases of minor Indian orphans who are inmates of the various state charitable institutions.

In connection with the intruder division of this office the district agents have investigated and successfully adjusted all intruder cases where an adjustment was possible.

A considerable increase is shown in the number of oil and gas, agricultural, and grazing leases filed with the district agents and submitted for action to this office after investigation, especial attention having been given to those taken for agricultural and grazing purposes. The careful attention given to these matters has been of material benefit to allottees in many cases, a substantial increase in the amount of bonus, royalties, or rentals having been secured or more extensive improvements having been provided for in agricultural leases.

The district agents continued during the past year to be of much assistance to the Department of Justice in connection with investigating and adjusting suits to clear title to restricted allotted lands in the Five Civilized Tribes, pending in the United States circuit court, and at the request of the Assistant Attorney-General in charge of such suits the district agents interviewed the allottees in a large number of cases where such suits have been adjusted and wherein the lands are now unrestricted. Such interviews show that a very small percentage of the allottees reconveyed the lands in question to the defendant or to anyone without a reasonable compensation.

Much additional work was placed upon the district agents during the year in investigating and reporting cases where grantees desire to have deeds executed by full-blood heirs of deceased allottees who died prior to May 27, 1908, approved by the Secretary of the Interior. In order to make an intelligent report and recommendation in these matters, it is necessary that the district agents view and appraise the land and interview the allottees to see whether or not they have received an adequate consideration at the time of the sale, and inasmuch as the majority of these transactions are from 2 to 5 years old, it is not only difficult to locate the heirs but difficult to ascertain when the same are located whether they actually received a reasonable consideration for such lands.

During the year the district agents have attended to many miscellaneous matters for the office of the Commissioner to the Five Civilized Tribes, thus avoiding the many expensive trips of employees from the office of the commissioner.

There has been no trouble during the year with the "Snake," or recalcitrant allottees of the Five Civilized Tribes, and this may be largely attributed to the cordial personal relation and close supervision of the district agents with these Indians.

The district agents have cooperated with the local state and the United States Indian school authorities in seeing that, as far as possible, all Indian children have advantage of the school facilities.

The prospect for the district agency work for the coming year is very bright, although hampered by the fact that a large percentage of the Indians live from 50 to 100 miles from the best portion of their allotted lands. We are planning for the coming year, with the cooperation of the district agents, the expert farmers who have been assigned to the Five Civilized Tribes, and the State Board of Agriculture, to do a wonderful amount of good to the individual Indians in teaching them and assisting them to plant better and more extensive, as well as intensive crops, and it is believed that the coming year of the district agency work will result in more good than during the first and second years, for the reason that these years were, to a certain extent, devoted to investigating and building up plans and methods.

The following tabulation discloses to a limited extent the amount and character of the detail work done by the district agents. The amount shown as saved for Indians represents only the actual, tangible money saved. The intangible saving and losses prevented are much greater, and a conservative estimate of the total saving to allottees by reason of the district agency work during the year is \$1,000,000.

Work done by district agents.

Verbal reports in probate matters under section 6, act of May 27, 1908.....	587
Reports to superintendent, miscellaneous probate matters.....	587
Probate complaints filed.....	1, 261
Probate complaints disposed of.....	1, 213
Lease complaints filed.....	1, 753
Departmental leases forwarded to superintendent.....	507
Applications for removal of restrictions forwarded superintendent..	1, 670
Applications for removal of restrictions filed.....	2, 014
Intruder complaints filed.....	827
Intruder complaints disposed of.....	285
Amount of money saved for Indian allottees by district agents.....	\$391, 618. 40

The field division also has general supervision over the land appraisers, as well as the work performed by field clerks in the investigation of matters requiring special attention, which can not be given by the district agents in connection with their regular duties. The work is so varied in its nature that a tabulated statement can not be made to convey an adequate idea of its scope or extent. In addition to this the newly appointed agricultural experts will cooperate with and be a part of the regular field force.

During the year the office has had under way the very complicated matter of making a roll of the heirs of deceased Seminoles. This work arose in connection with the per capita distribution of the annual interest on the Seminole fund. In making these payments it was ascertained that approximately one-fourth of the originally enrolled Seminoles had died since enrollment. The amounts due the heirs were so small and the expense of administration so great, particularly where professional administrators would secure appoint-

ments for the sole purpose of drawing this money, it was believed that the expense of administration would be entirely out of proportion with the amount of money involved, and therefore in order to save this money to the Indian heirs, this office, by authority of the department, undertook the preparation of a roll of the heirs. The work of securing proofs of heirship through the field force has been exceptionally slow and tedious, owing to the peculiar customs in the Seminole Nation with reference to marriage, descent, and distribution of property. When the roll is completed and approved so that payment can be made direct to the heirs it will result in material benefit to these full-blood Seminoles.

Numerous complaints have been made by Seminole citizens during the last few months with reference to the fraudulent practice of alleged land grafters in the Seminole Nation. These complaints cover a very wide range, including actions in ejectment brought by persons holding deeds, the validity of which has been attacked in courts, and ousting Indians from their allotments, and cases of alleged absolute forgery. These alleged fraudulent transactions seem to be so extensive and were confirmed in such a large measure by the investigations of the district agents that the necessity of the employment of a special United States attorney for the purpose of assisting the allottees in the Seminole Nation was brought to the attention of the department and urgently recommended. The last session of Congress provided for such employment, and it is understood the Department of Justice has detailed an attorney for the Seminole Nation whose services will soon commence. It is believed that this will materially assist in relieving the present unfortunate conditions in that nation. The restricted lands of full-blood and other allottees of the Five Civilized Tribes are not subject to taxation. However, undoubtedly through inadvertence, in a large number of counties such restricted lands have been assessed for taxation and in cases where the assessments have been extended upon the tax rolls the county treasurers have advertised the same for sale for nonpayment of taxes. In such cases it has been necessary, through the district agency force, to ascertain what land has been improperly taxed and in conjunction with the Commissioner to the Five Civilized Tribes to have steps taken through the United States court to restrain the sale of such lands. For the current year effort will be made to prevent the assessment of restricted lands by early cooperation of the district agents with the assessing boards.

INTRUDER DIVISION.

It has been the plan to transfer the field work heretofore handled by the intruder division to the district agency force as rapidly as circumstances will permit. This plan has been followed during the year, so far as possible, with the result that most intruder complaints are finally adjusted by the district agents to the satisfaction of all complaining parties.

Considerable correspondence is occasioned in connection with complaints of Cherokee freedmen whose rights to allotment are yet undetermined and frequent written and personal requests for assistance are made, which, of course, can not be rendered at this time. It has also been necessary to make extensive research among the records of

the intruder cases to obtain data desired in connection with the Mississippi Choctaw cases which are pending before the Court of Claims.

TOWN-SITE DIVISION.

During the fiscal year ended June 30, 1910, there was paid into this office \$87,068.21 in payment on town lots, which is distributed among the different nations as follows:

Cherokee Nation	\$12,837.80
Choctaw and Chickasaw nations.....	67,386.07
Creek Nation	6,844.84
Total.....	87,068.21

During May and June of the year just closed the Commissioner to the Five Tribes offered for sale at public auction forfeited and vacant lots in 179 government town sites in the various nations, all purchasers of forfeited lots being required to pay cash at the time of sale and purchasers of vacant lots being required to pay one-half cash and the balance in six months. The result of this sale is shown by the following tabulation:

Result of sale of forfeited town lots.

Nation.	Number of lots sold.	Appraised value.	Paid previous to forfeiture.	Price for which resold.
Creek.....	706	\$18,621.75	\$5,501.91	\$21,261.45
Cherokee.....	239	10,825.00	3,282.36	9,602.50
Choctaw.....	492	20,371.90	6,515.29	14,927.25
Chickasaw.....	1,713	36,274.00	12,427.23	18,249.55
Total.....	3,149	86,092.65	27,726.79	64,040.75

From the foregoing it will be noted that the total appraised value of forfeited and vacant lots which were offered for sale amounts to \$86,092.65, while the total amount received as a result of money paid previous to forfeiture and price received at the time of sale amounts to \$91,767.54, an increase over the appraised value of \$5,674.89.

The total amount of money received for town lots during the past eleven years is shown by the following tabulation, in which the receipts are classified by nations. To the grand total should be added the proceeds of the sale of vacant and forfeited lots heretofore referred to, which are being held subject to the approval of such sales by the Secretary of the Interior.

Proceeds of sale of town lots, 1900 to 1910.

Fiscal year ended June 30.	Creek.	Cherokee.	Choctaw and Chickasaw.	Total.
1900.....		\$74.02	\$11,139.48	\$11,213.50
1901.....		10.02	28,090.91	28,100.93
1902.....	\$80,536.56		157,188.83	237,725.39
1903.....	211,410.22	21,286.40	337,427.21	570,123.83
1904.....	106,479.26	73,568.24	374,574.22	554,621.72
1905.....	106,579.47	139,389.74	541,749.55	787,718.76
1906.....	149,049.53	244,450.74	581,728.65	975,228.92
1907.....	22,701.96	146,582.23	389,589.61	558,873.80
1908.....	21,636.57	93,687.94	249,134.19	364,458.70
1909.....	11,030.82	23,868.06	89,049.20	123,948.07
1910.....	6,844.84	87,537.30	67,386.07	87,068.21
Total.....	715,269.23	760,744.68	2,824,067.92	4,300,071.83

Preparation and delivery of town-lot patents during the fiscal year is shown by the following tabulated statement:

Creek Nation.....	749
Cherokee Nation.....	305
Choctaw and Chickasaw nations.....	1, 377
Total.....	2, 431

In addition to the regular work of the town-site division, as shown by the foregoing tabulated statements, many complications have arisen on account of the sale of lots by the original purchaser before completing deferred payments, the grantee claiming to have no knowledge of the delinquency and protesting against the forfeiture and sale of such lots by the Government and claiming to be an innocent purchaser for value and without notice of delinquency. Suits to restrain the sale of forfeited lots or the issuance of patents to the purchasers thereof have been threatened. The position of the department in this matter has been that the alleged transfer of title to lots of this character will not be recognized, therefore no record of such transfers has been kept in this office. If any attempt were made to do so the time and labor required would be such as to postpone indefinitely the conclusion of the town-site work. However, special legislation has been asked to authorize the Secretary of the Interior to accept payment of full amount of the purchase money due, including interest to date of settlement, when the same is offered by such alleged innocent purchaser.

The approval of the sale of vacant lots and the adjustment of the matter of the sale of forfeited lots will practically dispose of the payment for lots in the 300 original town sites of the Five Civilized Tribes, excepting a few towns in the Choctaw and Chickasaw nations and the additions to town sites established during the fiscal year 1909. A few new additions to town sites on the segregated coal lands have been recently authorized by the department and the payments for these, after the appraisement, will be made in installments as heretofore.

RESTRICTION DIVISION.

The work of the restriction division is not confined wholly to matters relating to removal of restrictions from allotted lands, but also includes the handling of all cases relating to the sale of inherited lands by full-blood heirs of deceased allottees and the approval of deeds executed by them. The tabulated statements herewith submitted do not indicate wholly the amount of work performed in connection with matters within the jurisdiction of this division, there being connected with each case a vast amount of detail which is not apparent from statistical statements calculated only to show net results.

On August 17, 1909, the Attorney-General of the United States rendered an opinion wherein it was held that conveyances executed by full-blood heirs of deceased allottees who died prior to May 27, 1908, must be approved by the Secretary of the Interior under the provisions of section 22 of the act of April 26, 1906, or such other provisions of law as might be applicable to the specific case submitted for consideration.

The effect of this opinion can only be appreciated when it is understood that prior to the passage of said act for a number of years it had been the practice in eastern Oklahoma to secure instruments of this character without submitting the same for approval by the Secretary of the Interior. It was the general opinion among attorneys that the provisions of the act of May 27, 1908, cured such defects as might have existed in such instruments. The opinion of the Attorney-General referred to, therefore, had the effect to make uncertain a great many titles which had theretofore been considered good. The duty of the Secretary of the Interior to approve such instruments being clearly defined by said opinion, it became necessary to make provision for handling this class of work, and being more nearly related to the work handled by the restriction division, it naturally fell into that division.

From the inherited-land cases thus far submitted it appears that in most cases there has been an inadequacy of consideration, same being determined by the value of the land at the time the sale was made. Where this condition exists the grantee in the deed is called upon to pay into this office an amount in addition to that actually paid by him sufficient to make the total equal the appraised value. As a result of this system there has been collected for full-blood heirs \$28,653.79. In addition to this, grantees have been called upon to pay \$83,927.09, upon receipt of which the deeds will be submitted for departmental approval.

Owing to the various laws and treaties and amendments thereto in force among the Five Civilized Tribes and the frequent changes in such laws, the approval of deeds of this character gives rise to a greater variety of legal complications than can be found in any other branch of our work. This is especially true with reference to questions of descent and distribution, concerning which every case presents a new legal question which must be determined before any intelligent action can be taken. This, in connection with the fact that in the most ordinary cases an unusual amount of detail must be attended to, makes necessary a high degree of care in handling this work. Notwithstanding the many difficult features to be contended with, however, an examination of the appended tabulation shows that nearly 50 per cent of the cases filed have been finally disposed of. It seems probable that for a time at least this work will be considerably on the increase.

In the matter of removal of restrictions care is exercised to determine the qualifications of the allottee, necessity for removal, the disposition of proceeds in case of sale, and such other features as may appear to require attention as shown by the circumstances of each case. Through the district agents and land appraiser every fact which may have any bearing on the case is ascertained, so that in all cases submitted to the department for action every step has been taken which will enable your office and the department to act intelligently in the premises. Under the system now in vogue more individual attention is given to each case than has ever been possible before. Prompt attention to meritorious cases can now be given while the naturally improvident Indian can be protected against the consequences of his own folly. The advantage of this system to the allottee is obvious.

Status of work in restriction division.

Nation.	Pending.		Approved.			Other disposition.				Total.
	Agency.	Department.	Conditional.	Unconditional.	School.	Canceled.	Denied.	Dismissed.	Involved in suit.	
Choctaw.....	35	39	729	403	16	14	200	370	100	1,905
Cherokee.....	43	43	720	660	9	9	340	296	28	2,138
Chickasaw.....	18	17	177	127	8	1	78	75	19	520
Creek.....	30	32	210	125	13	10	168	255	20	863
Mississippi Choctaw.....	12	10	168	16	4	6	11	70	7	304
Seminole.....		1								1
Total.....	138	142	2,004	1,331	50	40	797	1,056	174	5,732

Acres from which restrictions have been removed under act of May 27, 1908.

Nation.	Conditional (land sold).	Unconditional.
Choctaw.....	31,645.93	33,698.41
Cherokee.....	11,372.13	24,818.61
Chickasaw.....	7,131.87	11,499.99
Creek.....	7,443.67	6,193.75
Mississippi Choctaw.....	6,553.36	473.71
Total.....	64,146.96	76,684.47
RECAPITULATION.		
Unconditional.....	76,684.47	
Conditional (land sold).....	64,146.96	
Total.....	140,831.43	

Disposition of cases filed.

Approved:		
Conditional.....	2,004	
Unconditional.....	1,331	
School sites.....	50	
		3,385
Canceled.....		40
Denied.....		797
Dismissed.....		1,056
Land involved in suit.....		174
Pending in this office or returned to district agent.....		138
Reported pending or en route to and from the department.....		142
Total number of cases filed.....		5,732

Status of inherited-land cases.

Approved.....	124
Dismissed.....	19
Pending:	
In this office or returned to district agent.....	177
In department.....	80
	257
Total number of cases filed.....	350

Status of inherited-land cases, by nations.

Nation.	Pending.		Action taken.		Total.
	Agency.	Department.	Approved.	Dismissed.	
Creek.....	82	14	75	4	175
Choctaw.....	49	6	29	8	92
Cherokee.....	35	5	12	3	55
Mississippi Choctaw.....	4	3	3	3	13
Chickasaw.....	7	2	5		14
Seminole.....				1	1
Total.....	177	30	124	19	350

SALES DIVISION.

As will be shown by the statistics under the head of restriction division, over 50 per cent of the applications for removal of restrictions are approved conditionally, i. e., the land may be sold under the supervision of the department. This action is taken in cases where allottees can not read or write or have not sufficient business experience to warrant removing their restrictions absolutely. These sales are conducted through the district agents and the detail work of advertising, direction of appraisers, and the handling of the accounts after sales is attended to at the general office by the sales division.

During the year a most important change in the method of advertising land sales has been made, consisting of the publication of the appraised value of the land as determined jointly by expert land appraisers and the district agents. The wisdom of this change has been thoroughly demonstrated, it appearing from the records of this office that under the present public appraisement plan 45 to 50 per cent of the tracts advertised have been sold, while under the secret appraisement plan the highest percentage reached was 22. Furthermore, in addition to more land being sold, the average price per acre under the new plan exceeds the average price over the old plan by approximately \$1 per acre.

There has also been a marked increase in the number of inquiries received from persons interested in the purchase of lands, and it may be interesting to note that many sales have been made to persons living as far east as the New England States and as far west as the State of Washington, and some inquiries have been received from Alaska. It can readily be seen that this plan has proven beneficial not only to the allottee but to the eastern portion of the State as well.

The following is a tabulated list showing the work handled by this division:

Work of sales division during year ended June 30, 1910.

District No.	Headquarters.	Number of tracts sold.	Acreage sold.	Consideration received.
1	Vinita.....	55	2,213.00	\$33,724.23
2	Nowata.....	62	2,775.03	39,892.47
3	Sapulpa.....	25	1,631.43	64,667.20
4	Okmulgee.....	28	1,953.08	37,342.55
5	Muskogee.....	64	3,368.36	47,494.24
6	Westville.....	42	2,540.03	15,365.00
7	Talihina.....	23	5,975.43	14,419.00
8	McAlester.....	51	9,033.44	41,152.80
9	Holdenville.....	36	2,594.76	31,079.05
10	Atoka.....	31	2,538.91	22,265.73
11	Pauls Valley.....	56	5,135.68	65,216.81
12	Chickasha.....	56	4,402.41	62,550.27
13	Ardmore.....	37	2,967.11	26,068.00
14	Madill.....	38	3,362.36	33,960.75
15	Hugo.....	23	2,700.73	15,662.47
	Total.....	629	53,192.75	566,666.57

In addition to the foregoing there have been approved 46 applications for the sale of tracts for school-site purposes as compared with 9 applications for the same purpose during the previous year.

Land-sale funds handled during year.

Balance on hand June 30, 1910.....	\$211,281.41
Received:	
Account land-sale bids.....	600,248.91
Account interest on individual Indian bank accounts.....	7,301.38
Account of redeposit to individual Indian bank accounts.....	1,754.61
Total.....	820,586.31
Returned to bidders.....	65,489.29
Disbursed to allottees.....	304,088.77
Balance on hand at close of business June 30, 1910.....	451,008.25
	820,586.31

LEASE DIVISION.

During the fiscal year there were filed 1,563 mineral leases and 98 agricultural leases, a total of 1,661. As compared with the number of leases filed during the previous year, an increase of 283 is shown.

A vast amount of work has been caused in the lease division as a result of removal of restrictions by operation of law and the subsequent sale of the land by the allottee. This has occasioned an unusual amount of correspondence in answering letters of inquiry from allottees, purchasers, and the bond companies, all desiring to be advised as to the status of leases of this character. Verbal inquiries have also caused a very noticeable increase in the work.

The collection of delinquent royalties and rentals on the leases which have been canceled by the department has also received considerable attention, and as a result it has been possible to close many old accounts.

The disposition of assignments during the year has been delayed considerably because the assignees have been somewhat reluctant to agree to the approval of their assignments subject to departmental order of May 14, 1909, which in effect required assignees to consent to the payment of oil royalties on the basis of 41 cents per barrel. This condition will now in all probability be alleviated by reason of the fact that the department has modified its order referred to, fixing the price basis for settlement of oil royalties at the general market price at the time of the disposition of the oil.

Status of work of lease division.

LEASES FILED.

Oil and gas.....	20, 219
Coal and asphalt.....	272
Agricultural.....	253
Miscellaneous.....	84
	20, 828

DISPOSITION OF LEASES FILED.

Approved and in effect:	
Oil and gas.....	7, 225
Coal and asphalt.....	114
Agricultural.....	149
Miscellaneous.....	18
	7, 504
Canceled by department:	
Oil and gas.....	3, 945
Coal and asphalt.....	17
Agricultural.....	2
Miscellaneous.....	7
	3, 971
Removed from departmental supervision:	
Oil and gas.....	1, 715
Coal and asphalt.....	11
Miscellaneous.....	1
	1, 727
Disapproved by department:	
Oil and gas.....	5, 889
Coal and asphalt.....	82
Agricultural.....	44
Miscellaneous.....	63
	6, 078
Canceled for failure to refile:	
Oil and gas.....	530
Coal and asphalt.....	39
Agricultural.....	5
Miscellaneous.....	12
	586
Returned to lessee—no jurisdiction:	
Oil and gas.....	38
Coal and asphalt.....	1
Agricultural.....	5
Miscellaneous.....	1
	45
Canceled by agreement:	
Oil and gas.....	135
Expired:	
Oil and gas.....	92
Coal and asphalt.....	6
	98

Pending at department:		
Mineral	271	
Agricultural	29	
		300
Pending at this office:		
Mineral	385	
Agricultural	19	
		384
Total leases filed		20, 828

Disposition of leases filed during fiscal year ended June 30, 1910.

Pending in this office July 1, 1909	423
Filed during year	1, 661
Total	2, 084
Leases forwarded to department	1, 694
Returned to lessee—no jurisdiction	6
Pending June 30, 1910	384
Total	2, 084

Status of assignments.

Assignments on file July 1, 1909	129
Assignments filed during year	380
Assignments refiled during year	2
Total	511
Assignments forwarded to department	312
Returned to lessees—no jurisdiction	71
Withdrawn	10
Pending June 30, 1910	118
Total	511

ROYALTY DIVISION.

It is the function of the royalty division to handle all the individual ledgers showing the credit and disbursement of all moneys accruing as rentals and royalties on oil, gas, and other individual or tribal leases. Much work has been done during the year to systematize the detail incident to the handling of the large variety of the work which falls to this division. In this respect a more satisfactory condition exists than in previous years. A diversity of methods and plans for the perfection of the work has been adopted and many accounts have been closed by reason of the sale of lands, cancellation of leases, and removal of unrestricted leases from supervision. There has been a corresponding increase in accounts due to the development of new territory and the approval of many new leases. By actual count and comparison with the annual report for the fiscal year 1909 there is a decrease of 233 accounts.

On June 30, 1910, there were 8,596 open accounts on the books of this division, of which 5,633 covered leases still under supervision and 2,655 leases on which restrictions had been removed, the balance of 308 representing various miscellaneous accounts.

Much attention has been devoted during the year to the separation in the ledgers of restricted and unrestricted accounts. The vast

amount of work entailed in this separation can only be appreciated when it is known that it is necessary to make a thorough examination of the rolls in each case for the purpose of ascertaining the degree of blood and designation of homestead and surplus lands, the age of the allottee, and many other items necessary in order to determine the class in which the particular account might belong. The completion of this classification will make it possible to devote more attention to the handling of accounts of the restricted class.

There has also been completed during the year an identification-card system, the purpose of which is to avoid the payment of royalties to persons other than those entitled to them. The difficulty of identification prior to the installation of this system caused many complications.

The following is a tabulated statement of the receipts and disbursements of oil, gas, and other individual royalties from 1904 to 1910:

Receipts and disbursements on account of oil, gas, and other individual royalties, 1904 to 1910.

Fiscal year.	Receipts.	Disbursements.
1904.....	\$1,300.00	.....
1905.....	91,624.40	\$61,981.38
1906.....	323,555.40	338,279.01
1907.....	775,489.15	679,347.45
1908.....	1,662,627.55	1,685,675.26
1909.....	1,813,460.28	1,802,883.20
1910.....	1,420,894.97	1,301,508.99
Total.....	6,118,951.75	5,870,635.29

The revenues derived from coal and asphalt royalties on the segregated lands of the Choctaw and Chickasaw nations during the year were considerably in excess of those received during the year 1909, the royalty on coal amounting to \$246,962.64, and that on asphalt being \$3,199.12, making a total of \$250,161.76.

A comparative statement showing the royalties derived from this source, by fiscal years, is submitted herewith:

Coal and asphalt royalties received, 1899 to 1910.

Fiscal year:		Fiscal year:	
1899.....	\$110,145.25	1906.....	\$251,947.02
1900.....	138,486.40	1907.....	240,199.23
1901.....	199,663.55	1908.....	273,196.82
1902.....	247,361.36	1909.....	218,378.07
1903.....	261,929.84	1910.....	250,161.76
1904.....	277,811.60		
1905.....	248,428.36	Total.....	2,717,707.28

OIL-FIELD INSPECTION.

The oil inspector's force has been very active during the present year. Its duties cover a wide range, involving principally the testing of gas wells, investigation of complaints as to offset wells drilled on adjacent lands, the probable value of land for oil and gas mining purposes, adequacy of bonus considerations, complaints relative to

the operation of leases, and various other miscellaneous matters. Special attention is also given to the checking of gaugers, particularly on leases where the lessee is interested in the pipe-line company taking the oil. An attempt is made to so distribute the field work as to make it possible to frequently visit all wells. This has proved to be a very satisfactory system, insuring as it does the fullest investigation and at the same time affording to the lessees an opportunity to make inquiries as to the requirements of the department in the operation of leases.

The problem of disposing of the output which has heretofore confronted the oil producers in this field has been practically solved during the year by reason of the fact that the capacity of the small independent refineries has been substantially increased and new refineries established. There has also been a marked increase in pipe-line facilities, an 8-inch pipe line from the Glenn Pool to Baton Rouge, La., with a capacity of from 10,000 to 12,000 barrels per day having been completed. During the year the Gulf Pipe Line Company has extended its main line from the Glenn Pool to the Cherokee and Osage nations, near Ochelata, Okla. There were also a number of smaller pipe lines constructed during this period. These added facilities, together with the car shipments, have changed conditions to such an extent that practically the entire production in the Five Civilized Tribes is being taken care of. This is a condition which has never before existed in the history of the oil business in Oklahoma.

There were drilled in the Mid-Continent field during the fiscal year approximately 3,200 oil wells. Of this number 1,149 are producing wells on departmental oil and gas leases.

The approximate production of oil as marketed during the fiscal year in the territory of the Five Civilized Tribes was 44,221,000 barrels, as shown by reports which are reasonably accurate and which are embodied in the following tabulation:

Sales of oil, 1907-1910.

Month.	1907.	1908.	1909.	1910.
	<i>Barrels.</i>	<i>Barrels.</i>	<i>Barrels.</i>	<i>Barrels.</i>
July.....	990,000	3,326,000	3,442,000	3,092,000
August.....	990,000	3,580,000	3,292,000	3,802,000
September.....	925,000	3,675,000	3,178,000	3,739,000
October.....	1,265,000	4,270,000	3,407,000	3,578,000
November.....	1,250,000	3,845,000	3,138,000	3,654,000
December.....	1,365,000	3,565,000	3,390,000	3,519,000
January.....	1,595,000	3,340,000	3,284,000	3,659,000
February.....	1,707,000	3,260,000	3,108,000	3,226,000
March.....	2,366,000	3,610,000	3,376,000	3,696,000
April.....	2,970,000	3,450,000	3,262,000	4,448,000
May.....	3,154,000	2,875,000	3,503,000	3,815,000
June.....	3,150,000	2,305,000	3,830,000	3,993,000
Total.....	21,717,000	41,101,000	40,210,000	44,221,000

From the foregoing, as nearly as can be ascertained, 28,000,000 barrels of oil were run from land held under departmental leases, on which royalty was paid amounting to approximately \$1,000,000.

Of the oil that has been marketed in the last few years the pipe-line companies on June 30, 1910, held in storage in the Creek and Cherokee nations 37,823,583 barrels. In addition there are approxi-

mately 6,500,000 barrels still held by producers in storage unsold, making a total of 44,323,583 barrels in storage on June 30, 1910.

PIPE-LINE DIVISION.

During the year, in addition to extensions and laterals to existing lines and the construction of pumping stations, there have been completed and are now in operation two new trunk lines, one for oil and the other for natural gas.

Since the approval by the Secretary of the Interior on July 14, 1909, of the method of direct payment to the allottee of damages occasioned by the installation of pipe lines in cases where such lines cross restricted lands, payments have been so made in the presence of a representative of this office after the assessment of damages by said representative. Aside from assuring to the allottee the receipt of a fair consideration for damages sustained by him, this method has resulted in bringing into closer relationship to this office many Indians whose confidence is desired.

A considerable amount of work has been occasioned in this division during the year on account of the extension by the Oklahoma Pipe Line Company, grantee of the Prairie Oil and Gas Company, of an 8-inch oil line from the Glenn Pool to Baton Rouge, La., which is now in operation. There have also been a number of small lateral lines as well as a 16-inch gas line conveying gas from the Copan-Caney gas district to the eastern line of the Cherokee Nation. Through this and connecting lines gas is conveyed from this field to the lead and zinc districts of Joplin, Mo.

SUMMARY.

In the handling of the business of this office it is assumed that the allottee and the public are rightfully entitled to the same degree of attention as would be bestowed upon them were they dealing with a private business concern. All matters are therefore given as prompt attention as is consistent with care and accuracy, having in mind the best interests of the allottee.

The tabulated statements submitted herewith can not be made to convey an adequate idea of the amount and character of work done by this office. This is especially true with respect to the good being accomplished by the district agency and field service among the individual allottees, also with reference to the immense volume of financial detail, the handling of applications for removal of restrictions, and the subsequent sale of the land.

Particular attention is invited to the status of the removal of restriction work under existing law. A total of 140,831.43 acres of restricted land has been made taxable, the restrictions having been removed or the land sold through the district agents. All funds handled by this office which are derived from the sale of restricted lands and not immediately disbursed to the allottees are deposited in national banks throughout eastern Oklahoma, it being the purpose, so far as practicable, to place these funds in local depositories nearest the homes of allottees, to whom it is disbursed on the recommendation of the district agents. Such disbursements are made to allottees for the purpose of improving their remaining lands and to otherwise

CHEROKEE NATION.

Tribal boarding schools:

Cherokee Seminary, near Tahlequah, enrolled 225 Cherokee pupils, with an average attendance of 130. (This school was destroyed by fire March 20, 1910.)

Cherokee Orphan Training School, near Tahlequah, enrolled 95 Cherokee orphan pupils, with an average attendance of 68.

Cherokee Colored Boarding School, near Tahlequah, enrolled 57 Cherokee freedmen, with an average attendance of 42.

SEMINOLE NATION.

Tribal boarding schools:

Emahaka Female Academy, near Wewoka, enrolled 122 Seminole Indian and freedmen girls, with an average attendance of 84.

Mekuskey Male Academy, near Mekuskey, enrolled 132 Indian and freedmen pupils, with an average attendance of 82.

CHICKASAW NATION.

Tribal boarding schools:

Collins Institute, near Frisco, enrolled 90 Chickasaw girls, with an average attendance of 69.

Chickasaw Orphan Home, near Lebanon, enrolled 88 Chickasaw orphan pupils, with an average attendance of 50.

Bloomfield Seminary, near Hendrix, enrolled 85 Chickasaw girls, with an average attendance of 46. (This school was closed March 31, 1910, on account of poor attendance.)

Rock Academy, near Wapanucka, enrolled 92 Chickasaw pupils, with an average attendance of 51.

Harley Academy, near Tishomingo, enrolled 93 Chickasaw boys, with an average attendance of 51. (This school was closed April 30, 1910, on account of falling off in attendance.)

Contract boarding schools:

St. Elizabeth's Convent (Catholic), at Purcell, enrolled 21 Chickasaw pupils, with an average attendance of 18.

St. Joseph School (Catholic), at Chickasha, enrolled 10 Chickasaw pupils, with an average attendance of 7.

St. Agnes Academy (Catholic), near Ardmore, enrolled 18 Chickasaw pupils, with an average attendance of 15.

Murray State School of Agriculture, near Tishomingo, enrolled 25 Chickasaw pupils, with an average attendance of 15.

El Meta Bond College (private), at Minco, enrolled 16 Chickasaw pupils, with an average attendance of 15.

Hargrove College (Methodist), at Ardmore, enrolled 16 Chickasaw pupils, with an average attendance of 9.

CREEK NATION.

Tribal boarding schools:

Nuyaka Boarding School, near Beggs, enrolled 117 Creek boys and girls, with an average attendance of 94.

Creek Orphan Home, near Okmulgee, enrolled 93 Creek orphan pupils, with an average attendance of 61.

Wetumka Boarding School, near Wetumka, enrolled 153 Creek boys and girls, with an average attendance of 75.

Eufaula High School, at Eufaula, enrolled 150 Creek girls, with an average attendance of 100.

Euchee Boarding School, at Sapulpa, enrolled 169 Creek pupils, with an average attendance of 93.

Pecan Creek Boarding School (colored), near Muskogee, enrolled 68 Creek freedmen boys and girls, with an average attendance of 54.

Tallahassee Boarding School (colored), near Tallahassee, enrolled 119 Creek freedmen boys and girls, with an average attendance of 77.

All boarding schools in the Five Civilized Tribes have heretofore been conducted under the contract system. This system was adopted when the Government assumed control of the schools under act of

Congress approved April 26, 1906. At that time it was not thought that the schools would be continued more than one or two years, and it was considered unwise to incur the expense of reorganizing the schools and placing them on the same basis as other schools in the Indian Service if they were to be continued for only one or two years. Even now it is not definitely known how long these boarding schools will be continued. Strong pressure is being brought to bear to secure the passage of a law by Congress with a view of winding up all tribal affairs, capitalizing the tribal funds, and paying them out to the members of the tribes per capita. This would mean that there would be no funds from which to support an independent system of schools, as is now being done. Notwithstanding the fact that the condition as to the future of these schools remains unchanged, it has been decided to abolish a number of the boarding schools where the attendance was small and the buildings in dilapidated condition, and to repair and newly equip those to be retained, introducing in the course of study the subjects of agriculture, manual training, domestic science, etc. The lack of a settled policy with reference to these schools resulted in permitting the buildings to fall into a dilapidated and insanitary condition, the equipment became worn out and unfit for use, and in many cases the school plants were neglected, and much criticism was made, both by whites and Indians, of the manner in which the Government was conducting these schools. The policy, therefore, decided upon by the Office of Indian Affairs is to equip and conduct a few schools properly, rather than to attempt to conduct a larger number as they have been conducted during the past four years.

The following is a list of the schools that have been abandoned:

Schools abandoned during fiscal year ended June 30, 1910.

CHEROKEE NATION.

Cherokee Colored Boarding School, near Tahlequah.

CREEK NATION.

Wetumka Boarding School, near Wetumka.

Creek Orphan Home, near Okmulgee.

Pecan Creek Boarding School (colored), near Muskogee.

CHICKASAW NATION.

Chickasaw Orphan Home, near Lebanon.

Harley Academy, near Tishomingo.

Rock Academy, near Wapanucka.

All other schools mentioned in the foregoing list will be continued, and in those nations where the orphan schools have been discontinued arrangements have been made for giving preference in all of the tribal boarding schools to orphan children. Arrangements have also been made by which Indian pupils between the ages of 14 and 21 in the restricted class (those whose lands are not yet taxable) may be enrolled as pupils at Haskell Institute, Lawrence, Kans. Many applications have been received from parents and guardians of minor children for enrollment as pupils in that school. At this time about 60 applications have been received and accepted. It is believed that at least 100 pupils in the Five Civilized Tribes will take advantage of this privilege this year.

COEDUCATION OF WHITES AND INDIANS IN THE PUBLIC AND STATE SCHOOLS.

It is often remarked that the full-blood Indian will not attend with any regularity the public schools of the State. It is alleged that a sensitive nature and retiring ways, together with the local prejudice, are the causes for his lack of interest in the public schools. To some extent this is true, especially in isolated communities, where the schools are widely scattered, poorly equipped, and where the white people take little interest in the education and elevation of their Indian neighbors. But the full-blood Indian is more and more receiving attention from the better class of white citizens who have taken up their homes among them. Only a few days ago the chairman of the state board of agriculture applied for a contract for 10 full-blood Indian boys from each of the Five Civilized Tribes for the State Agricultural and Mechanical School, located at Stillwater, Okla. He stated that he had lived among the Indians on the east side of the State for a number of years, and that he had observed Indian boys possessed a natural aptitude for doing things with their hands. He appeared to be very much interested in the uplift of the Indian, and I find that the presidents of the various state schools throughout eastern Oklahoma are very much interested in the future of the Indians of the Five Civilized Tribes. The state institutions will admit any Indian who is prepared to enter the schools on the same terms as white pupils are admitted.

As the country is settled up with a good class of white citizens, through the sale of inherited Indian lands and sale of Indian lands from which restrictions have been removed, the local prejudice now maintaining in many of the isolated rural districts will be gradually overcome. For the present, however, in my opinion, the tribal boarding schools are a necessity, especially if their enrollment be confined largely to the full-blood class. In many of the tribal boarding schools 95 per cent of the pupils enrolled last year were full bloods, and in none of these schools were the enrollments less than one-half full blood. Since these schools are maintained from tribal funds it would seem that the above proportion is a very fair one for the full-blood Indians. In my opinion, it would be unwise to abolish all of the tribal schools at one stroke, but the weaker ones and less needed ones should be eliminated gradually, and for a number of years one or two good boarding schools should be maintained in each nation. Many of the Indians have said to me that while some of the leaders in the various tribes wish to abolish the boarding schools, still this was not the wish of the mass; that the full-blood Indians now think that since the mixed bloods derived nearly all the advantages of these schools in past years the full bloods should now receive their share of the benefits to be derived from their continuance. The full blood argues that it is only lately that he is beginning to see the benefits to be derived from the schools, and that the Government ought to exercise a little more patience with him and to provide a way by which at least a few of these boarding schools may be continued for a number of years to come.

RURAL DAY SCHOOLS.

During the past five years Congress has appropriated more than \$1,000,000 for the "maintenance, strengthening, and enlarging of the tribal schools of the Cherokee, Creek, Choctaw, Chickasaw, and Seminole nations." This money, however, has been used to pay the salaries of teachers in the rural public schools in the Five Civilized Tribes. In aiding these rural schools the number of Indian pupils that were to attend them was never considered. In many of the public schools thus aided there were no Indian pupils whatever in attendance. Some cases have come to my notice where a teacher would be given an appointment to teach a five-months' school at \$50 per month, and would employ a substitute at \$35 per month to teach the school. From the reports coming to this office it would be impossible to detect a matter of this kind, and for this and other reasons it has been decided that hereafter no teachers in the public schools of the State will be paid salaries by the Government. Instead, tuition will be paid to the school district for Indian pupils in the restricted class, based on an average daily attendance. This plan so far meets with the hearty approval of the county superintendents throughout eastern Oklahoma. They resent somewhat what they term "federal interference with the public-school system of the State," and claim that our methods tend to the lowering of standards they are trying to maintain in the schools. In my opinion this is one reason for the lack of interest on the part of county superintendents and school directors in the rural districts in getting the Indians interested in the schools and encouraging them to attend. So far this office has received assurances from a great many of the county superintendents throughout the eastern part of the State and from school directors in the rural districts that they would be glad to cooperate with us in every possible way with a view of getting as many of the full-blood Indian children into the public schools as possible. I am thoroughly convinced that if the Office of Indian Affairs, through its supervisor of schools in the Five Civilized Tribes, shows a willing disposition to meet the state school authorities half way on all propositions that have for their object the uplift of the Indian and getting him interested in himself and in the public schools of the State that the white people will gladly cooperate with this office in all of its efforts along this line.

I submit herewith statistics showing the enrollment, attendance, and cost of maintenance of each tribal boarding school under the supervision of this office, and a table of statistics concerning the disbursement of the money appropriated by Congress and designated "Indian schools, Five Civilized Tribes, 1910," and used to aid rural public schools.

Respectfully submitted.

OSCAR H. LIPPS,
Supervisor in Charge.

The COMMISSIONER OF INDIAN AFFAIRS.

SCHOOL STATISTICS, FIVE CIVILIZED TRIBES, FISCAL YEAR 1910.

Enrollment, attendance, and cost of tribal schools.

CHOCTAW TRIBAL SCHOOLS.

Name of school.	Enroll- ment.	Average attend- ance.	Months of school.	Expenditure.				Average per pupl.
				Amount paid con- tractors.	Amount paid em- ployees.	Supplies and repairs.	Total.	
Jones Male Academy.....	176	112	9	\$13,475.63	\$2,866.00	\$1,258.20	\$20,599.83	\$153.92
Armstrong Academy.....	185	102	10	12,185.31	5,048.00	474.11	17,707.42	173.40
Tuskahoma Female Academy.....	175	113	9	13,589.18	5,791.00	772.64	20,152.82	178.34
Wheelock Academy.....	138	111	9	13,198.29	4,410.00	408.89	18,017.18	162.31
Chishoktak.....	77	34	9	2,733.02	540.00	.....	3,273.02	96.27
Old Goodland.....	90	70	9	6,671.68	2,405.00	.....	8,076.68	115.38
St. Agnes Academy.....	35	30	9	3,261.56	.....	.....	3,261.56	108.72
St. Joseph School.....	13	10	9	1,031.44	.....	.....	1,031.44	103.14
St. Elizabeth School.....	26	24	9	2,565.99	.....	.....	2,565.99	106.91
St. Agnes Mission.....	35	31	9	3,240.00	.....	.....	3,240.00	104.51
Murray State School of Agriculture.....	15	8	9	812.89	.....	.....	812.89	101.61
Salary and expenses of tribal superintendent, miscellaneous.....	.....	.....	.....	.....	.....	.....	900.65	.....
Total.....	965	.....	.....	71,704.99	24,000.00	29,13.84	99,339.48	.....

CHEROKEE TRIBAL SCHOOLS.

Cherokee Seminary.....	225	130	64	\$8,590.83	\$4,837.65	\$404.07	\$13,822.55	\$106.33
Cherokee Orphan Asylum.....	95	68	12	9,535.67	3,733.33	267.82	13,536.82	199.07
Colored Boarding School.....	57	42	8	3,057.18	1,955.00	81.65	5,093.83	121.28
Miscellaneous expenses.....	.....	.....	.....	.....	.....	.....	321.75	.....
Total.....	377	.....	.....	21,183.68	10,515.98	753.54	32,774.95	.....

SEMINOLE TRIBAL SCHOOLS.

Emahaka Academy.....	122	84	8	\$6,224.76	\$4,420.00	\$311.81	\$10,956.57	\$130.44
Mekunkey Academy.....	132	82	8	6,097.90	4,015.00	466.58	10,579.48	129.02
Salary and expenses of tribal superintendent, miscellaneous.....	.....	.....	.....	.....	.....	.....	533.02	.....
Total.....	254	.....	.....	12,322.66	8,435.00	778.39	22,389.07	.....

CHICKASAW TRIBAL SCHOOLS.

Collins Institute.....	90	68	9	\$7,357.88	\$3,539.67	\$964.44	\$11,861.99	\$174.44
Chickasaw Orphan Home.....	88	50	94	6,018.01	4,119.17	1,578.33	11,716.56	224.33
Bloomfield Seminary.....	85	46	9	3,455.27	3,172.49	713.61	7,341.37	189.59
Rock Academy.....	92	51	9	5,517.70	3,909.33	851.00	9,678.03	189.77
Harvey Academy.....	93	51	8	4,894.01	3,512.00	757.83	9,153.84	179.49
St. Elizabeth Convent.....	21	18	9	1,891.53	.....	.....	1,891.53	106.08
St. Joseph School.....	10	7	9	808.61	.....	.....	808.61	115.61
St. Agnes Academy.....	18	15	9	1,019.43	.....	.....	1,019.43	107.96
Murray State School of Agriculture.....	25	15	8	1,488.66	.....	.....	1,488.66	99.24
El Meta Bond College.....	16	15	9	1,567.45	.....	.....	1,567.45	104.49
Hargrove College.....	10	9	7	738.61	.....	.....	738.61	82.07
Salary and expenses of tribal superintendent, miscellaneous.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	564	.....	.....	35,347.16	18,152.66	4,366.26	58,955.30	.....

CREEK TRIBAL SCHOOLS.

Nuyaka.....	117	94	9	\$8,463.91	\$4,199.25	\$311.40	\$12,974.56	\$138.03
Creek Orphan Home.....	93	61	9	6,556.21	3,132.50	240.96	9,929.67	162.76
Wetumka.....	153	75	9	6,719.92	3,516.49	788.42	11,024.83	147.13
Eufaula High.....	150	100	9	9,078.75	4,512.68	766.99	14,358.32	143.68
Euchee.....	169	93	9	8,100.00	4,073.75	479.57	12,653.32	136.06
Pecan Creek.....	68	54	9	3,863.81	2,192.50	98.86	6,155.17	113.98
Tulalahassee.....	119	77	9	5,943.15	3,139.08	612.63	9,694.86	124.61
Miscellaneous expenses.....	.....	.....	.....	.....	.....	.....	967.45	.....
Total.....	869	.....	.....	48,625.75	24,766.15	3,298.83	77,688.18	.....
Total cost of the 34 tribal boarding schools.....	.....	.....	.....	.....	.....	.....	\$287,284.89	.....
Salaries and expenses of school officials, miscellaneous.....	.....	.....	.....	.....	.....	.....	3,532.09	.....
Total.....	.....	.....	.....	.....	.....	.....	291,116.98	.....

Expenditure of fund, "Indian schools, Five Civilized Tribes, 1910."

	Enroll- ment.	Cost.
Choctaw Nation (161 day schools):		
Indian.....	584	
White.....	5,153	
Negro.....	502	
	6,239	\$26,098.36
Cherokee Nation (149 day schools):		
Indian.....	1,081	
White.....	3,161	
Negro.....	209	
	5,051	23,625.01
Seminole Nation (9 day schools):		
Indian.....	12	
White.....	211	
Negro.....	168	
	396	1,444.99
Chickasaw Nation (148 day schools):		
Indian.....	323	
White.....	7,042	
Negro.....	537	
	7,902	24,550.04
Creek Nation (100 day schools):		
Indian.....	216	
White.....	1,699	
Negro.....	2,412	
	4,327	16,189.97
Total (567 day schools):		
Indian.....	2,816	
White.....	17,293	
Negro.....	3,523	
	23,906	91,908.37
Salaries of school officials and employees, miscellaneous.....		14,851.98
Total.....		106,760.30

Expenditure of fund, "Indian schools, Five Civilized Tribes, 1909."

Salaries of day school teachers, back payments..... \$101.67

Expenditure of fund, "Indian schools, Five Civilized Tribes, surplus court fees."

Repairs on boarding school buildings..... \$14,086.83

Amount expended through the office of superintendent of schools,

Five Civilized Tribes..... 222,821.54

Total expended..... 412,065.78

**REPORT OF THE GOVERNOR OF THE
DISTRICT OF ALASKA.**

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REPORT OF THE GOVERNOR OF ALASKA.

GOVERNOR'S OFFICE,
Juneau, Alaska, October 1, 1910.

SIR: I have the honor to submit herein my annual report for the fiscal year ended June 30, 1910, on the matters specified in section 2 of the Alaska Civil Code governing the conduct of this office.

The administration of the civil government of Alaska in nearly all of the federal offices has been usually efficient and, as far as the present laws make possible, generally effective. This has been particularly true of the courts, the principal officers of which, under our present scheme of government, exercise a greater variety of functions than those of district courts in the States. Industrial conditions are about the same as in 1909, but recent mineral discoveries, the assured early establishment of new mining operations, and several other circumstances give assurance of a greater productive activity in nearly all fields of effort within the next few months. The want of cheap fuel and the delay in opening the Alaska coal fields are the strongest adverse factors in the present problem of territorial progress.

POPULATION.

Because of the greater facility of travel in many districts in winter the decennial census enumeration in some parts of Alaska was made in January instead of in June; in other localities the count was made in April. The results of the census have not been announced, but careful estimates of the population prior to the official enumeration gave no large increase in the number officially counted in 1900. The census of 1900 gave a white population of 30,507 and a native population of 29,536. Many nonresidents are employed in the fishing and other industries, and the population of the Territory has not kept pace with industrial and commercial development. It is doubtlessly true, however, that the number of persons who may be regarded strictly as permanent residents, and especially of those who have become genuinely attached to the soil, has increased gradually during the last decade. The present and prospective conditions, both in Alaska and the States, are such as to promise a large increase in the population of this Territory in the next few years.

PROPERTY AND LOCAL TAXATION.

There has been no recent general increase in the value of taxable property in the several incorporated towns. Values in some of the towns situated in placer mining districts have declined, but the instances of a falling off have been exceptional. Three towns—Cordova, Haines, and Petersburg—have been incorporated within the last year.

The following table shows the valuation of taxable property and the rate of taxation in the several incorporated towns in 1909 and 1910:

Assessed valuation and rate of taxation.

Town.	1909.		1910.	
	Assessed valuation.	Rate of taxation.	Assessed valuation.	Rate of taxation.
Chena.....	\$500,000	(c)	(b)	
Cordova.....			(b)	
Douglas.....	400,000	1 per cent...	\$363,308	1 per cent.
Eagle.....	150,000	(c)	125,000	(c)
Fairbanks.....	3,225,000	1½ per cent...		
Haines.....			(b)	
Juneau.....	1,287,000	1 per cent...	1,351,295	1 per cent.
Ketchikan.....	641,915	1 per cent...	641,915	1 per cent.
Nome.....	2,330,000	2 per cent...	2,077,675	1½ per cent.
Petersburg.....			(b)	
Skagway.....	687,439	1 per cent...	700,000	1 per cent.
Treadwell.....	(b)		(b)	
Valdez.....	841,000	2 per cent...	650,000	2 per cent.
Wrangell.....	122,003	1 per cent...		

* No assessment made.

† No valuation made during the year and no tax levied.

COMMERCE.

The shipments of domestic merchandise from the States to Alaska in the last fiscal year were larger than in any prior year, the increase being due, in some measure, to activity in railroad construction in the Copper River Valley. The commercial movement from Alaska to the States, including gold and silver of domestic production, was larger than in any other year except 1909. The decrease, however, was only \$105,920 in total southbound shipments of \$30,751,311. The following tables do not include the comparatively small commerce between Alaska and foreign countries, except the Yukon gold and silver shipments which passed through the Territory.

Domestic merchandise shipped from the United States to Alaska, 1906-1910.

	Fiscal year ended June 30—				
	1906.	1907.	1908.	1909.	1910.
Coal.....	\$268,723	\$277,741	\$182,942	\$172,238	* \$208,359
Lumber.....	350,871	565,991	419,170	611,110	527,053
Hardware and machinery.....	2,682,435	3,852,679	4,824,509	4,812,280	5,709,558
Provisions.....	4,438,685	5,073,354	5,625,681	5,730,895	5,930,196
Liquors.....	738,240	829,473	733,281	740,667	654,821
All other.....	5,896,321	7,211,855	4,171,993	5,119,255	4,942,680
Total.....	14,375,275	17,811,093	15,957,576	17,186,445	17,972,647

* Besides the domestic coal above mentioned, there was foreign coal to the value of \$356,435 imported during the year.

Distribution of domestic merchandise shipped from the United States to Alaska, 1906-1910.

	Fiscal year ended June 30—				
	1906.	1907.	1908.	1909.	1910.
Southeast Alaska as far west as Sitka.....	\$3,938,826	\$4,223,428	\$4,513,006	\$5,386,437	\$4,439,244
Southern Alaska, Yakutat to Unalaska.....	2,688,176	2,968,515	4,235,089	4,266,676	5,303,831
Bering Sea and Arctic Ocean—all points on seacoast except St. Michael.....	4,556,962	5,958,731	3,964,548	3,788,784	3,864,219
Yukon River, including St. Michael and Yukon Basin.....	3,191,311	4,650,419	3,244,933	3,754,548	4,365,353
Total.....	14,375,275	17,811,093	15,957,576	17,186,445	17,972,647

Value of merchandise and precious metals shipped from Alaska to the United States, 1906-1910.

	Fiscal year ended June 30—				
	1906.	1907.	1908.	1909.	1910.
Salmon, canned.....	\$6,467,927	\$8,423,146	\$8,125,951	\$9,972,316	\$9,434,946
All other fish.....	780,991	722,104	800,165	852,634	969,861
Copper ore.....	823,015	1,267,621	474,172	455,118	165,566
Whalebone.....	189,648	367,872	138,989	193,192	136,520
Furs.....	494,916	646,652	463,108	537,162	574,764
All other.....	451,633	679,429	915,412	1,044,933	1,067,806
Total.....	9,206,130	12,106,824	10,917,797	13,055,355	12,349,462
DOMESTIC GOLD AND SILVER.					
Gold.....	12,638,606	18,564,228	17,490,777	17,782,493	18,363,128
Silver.....	1,015	19,474	13,007	19,383	8,721
Total.....	12,639,623	18,583,702	17,503,784	17,801,876	18,401,849
FOREIGN GOLD AND SILVER.					
Gold.....	7,467,992	6,837,839	3,337,338	3,464,200	3,865,978
Silver.....	23,541	9,311	7,125	14,004	11,246
Total.....	7,491,533	6,847,150	3,344,463	3,478,204	3,877,224
Grand total.....	29,339,286	37,537,676	31,766,044	34,335,435	34,628,535

RAILROAD CONSTRUCTION.

Only one of the Alaska railroad projects has made any progress in actual construction during the last year, and the outlook for extensive railroad building in other parts of the Territory, calculated to assist in developing the general resources, has not improved since 1909. The Alaska Central Railway, which last year extended its track to mile 75, on the projected route from Resurrection Bay to the Matanuska coal fields and to navigable waters somewhere on the Tanana River, was sold under the order of the district court, and is now incorporated as the Alaska Northern Railway. No new construction work has been done this year. The company's officers assert that the principal factor in preventing a continuation of construction is the unsettled state of the coal-land question and the inability of any citizen to obtain title to or lease these lands.

The construction of the Copper River and Northwestern Railway, which is building a standard-gauge road through the lower valley of the Copper into the Chitina region, was continued until December of

last year when the weather became severe. About 101 miles of track were completed, approximately 3,000 men having been employed. Work was continued last spring, the grade being extended and rails laid from Tikel, and a long bridge being constructed across the Copper River between Miles Glacier and Childs Glacier. By September 25 trains were in operation from Cordova, the tide-water terminal, to Chitina, a distance of 131 miles; and the construction company expected to lay 70 miles of additional track on the Chitina branch, completing the line to the center of the present developed copper region. No accepted plan to extend the Copper River road into the Tanana valley or to any navigable water in the interior has been definitely announced by the company.

GOVERNMENT AID FOR RAILROADS.

Upon the sound theory that the investment of capital in a frontier country should be encouraged in proportion to the natural obstacles which are to be encountered, it would seem that government aid for railroad construction in Alaska is not only justifiable, but absolutely necessary to the early development of the Territory's great resources and to the settlement of the country.

A trunk line of railroad in Alaska should mean a railroad from a tide-water port to some point on one of the great navigable rivers of the interior. Within this meaning of the term, no trunk line has been built, and there is no definite assurance that any will be built in the near future. Of the two standard-gauge roads which have been begun, one suspended construction work some time ago and the other is not, as far as its present plans are known to the public, destined to traverse the principal agricultural and placer-mining districts.

It is doubtlessly true that any trunk line of the kind suggested would fail to yield even a small return upon the investment for the first few years after its completion. It is just as certain that such a railroad would repay its investors with annual interest on bonds and common stock eventually. There is abundant promise of this in the mineral resources and in the natural richness of the large interior valleys, which will assuredly be cultivated by permanent farm settlers as soon as the more available northwestern provinces of Canada have become filled up and transportation facilities and accessibility to markets are provided in Alaska.

My observation during an extensive journey through the interior this summer showed that vast areas of the lower-grade gold placer ground are only awaiting cheaper supplies (which would be obtainable if railroad transportation were afforded) for their successful development. It is well demonstrated, also, that many of the present quartz prospects in the Tanana and Susitna valleys and in the Mount McKinley district will be operated on a large scale as soon as less expensive means of transportation are provided. The difference between profit and loss in many of these fields of effort is the difference between extremely high freight rates and moderate freight rates.

The general wisdom of government aid for railroads being recognized, as it has been recognized several times in the history of the United States, there is no doubt that such aid ought to be extended in Alaska. Assistance should be in the form of a guarantee of interest on the bonds of railroads, the construction of which, upon routes

selected by a government board, should be authorized only after competitive bidding by companies or syndicates desiring to build and operate the roads. Such a plan as was authorized for railroad building in the Philippine Islands is applicable to Alaska.

WAGON ROADS AND TRAILS.

The construction of wagon roads and trails has progressed steadily this year. The benefits derived from these ways of transportation have become so generally appreciated that the available funds have been found altogether too small to meet the popular demand for more roads. At the end of the last calendar year roads and trails had been constructed in Alaska, as follows: Wagon road, 720.39 miles; winter sled road, two-horse, 472.75 miles; trail, single horse or dog sled, 551.56 miles; trail, staked with permanent iron stakes, 85 miles; trail, staked with temporary stakes, 670 miles. This work, together with maintenance from year to year, represents an expenditure of \$1,487,911.24 of special appropriations by Congress and amounts received from the Alaska fund; besides probably \$75,000 to \$100,000 derived from voluntary contributions, and from the local road-tax law expended upon these routes. The work of maintenance and improvement on the established routes has been carried on during the present season, with such new work as the available funds would permit.

It is obvious that some of the considerations which I have set forth in favor of the early building of railroads applies with exactly the same force, and for similar reasons, in favor of wagon-road construction. The benefits which already have come from the faithful, able and well-managed work of the board of road commissioners in Alaska are incalculable. Mining has been carried on in districts which either could not have been opened at all or would have offered only a precarious opportunity for the miner, had it not been for the lower freighting rates on supplies which the new roads and trails made possible. Definite localities could be named at the present time where profitable mining operations could be carried on if funds were available for more extensive road building.

Fortunately the Congress has deemed it wise each year since 1905 to make a moderate appropriation for the work of the road commission, supplementing the moneys regularly derived from the Alaska fund. It is earnestly recommended that these appropriations be continued and, if possible, increased.

MINES AND MINING.

The notable features of recent mineral development have been the extensive prospecting for gold quartz in the Fairbanks district, with encouraging results; the transition from other forms of placer mining to dredging in the Seward Peninsula; the beginning of large hydraulic operations in the Bonnifield country; the stampede of placer miners and prospectors to the Iditarod and the Kuskokwim; the enlargement of gold lode mining operations near Juneau; the settlement of litigation which has prevented extensive operations in gold quartz in the Berners Bay neighborhood; increased interest in gold quartz in the Susitna basin and in the district near Valdez; and

the preparations for shipping large quantities of high-grade copper ore from the Chitina region.

The total value of the mineral products of Alaska from 1880 to 1909 was \$169,482,625, of which all but about \$7,000,000 was gold.

The publications of the United States Geological Survey, which are intended for general distribution among interested persons, and a list of which is given in an appendix accompanying this report, contains such valuable detailed information in regard to the mineral resources of Alaska that only a brief summary of conditions is required herein.

GOLD.

The production of gold in 1909 amounted to \$20,463,000, which was larger than in any prior year with the exception of 1906. The excitement over mineral discoveries in the Iditarod caused many operators and miners to leave the Fairbanks district, and for that reason the total production of gold for Alaska may be somewhat smaller this year than it was in 1909.

The discoveries of gold placer in the Iditarod region have been somewhat disappointing, when it is considered that several thousand miners and prospectors have rushed to that region within the last year, but the hopeful feature of the situation is that extensive and diligent prospecting is being carried on, not only on the Iditarod River, but in the whole surrounding region and in the great basin of the Kuskokwim.

The interest in gold-quartz prospects in the Fairbanks district, which became pronounced last year, has increased still more during the late open season. None of these prospects has yet become developed to a point entitling it to be called a mine, but in several instances the outlook is highly encouraging. Nearly all the development work has been carried on by poor men, having only a small capital, and it is significant that in several cases the quartz has paid the expenses of development from the beginning, exceptionally high values in the ore making this possible.

The great enlargement of gold-quartz operations in Silver Bow Basin, a short distance from Juneau, promises much prosperity for that region. After being held back by litigation for many years, gold-quartz mining is about to be begun on a large scale on Berners Bay, in southeastern Alaska.

Prospects for gold-lode mining in the Susitna Valley, tributary to Seward, and in the vicinity of Valdez, are excellent, and profitable developments in high-grade ore have already taken place.

SILVER.

The production of silver in Alaska is incidental to that of gold. The output in 1909 was 126,906 fine ounces.

COPPER.

The continued low-market price of copper prevented several mines from resuming operations, but the building of the railroad from Cordova to the Chitina region, and its prospective early opening to traffic, will cause a large increase in copper production. The ores of

this region are of exceptionally high grade. The rapid building of the railroad has caused much prospecting for copper, and there is some promise of large developments in the Nebesna and White River regions. The total production of copper in Alaska last year was 4,124,705 pounds.

TIN.

The output of tin in 1909 was small, but prospecting was carried on, and some development work was done on producing properties. The greatest activity was in the Seward Peninsula field. Stream tin was reported this summer on one of the creeks near Fairbanks.

COAL.

The principal coal fields of the Territory remain inactive because of the inability of claimants to secure title. A somewhat extended discussion of the coal-land situation is presented in another part of this report.

PETROLEUM.

There has been no production of petroleum in Alaska, but the oil seepages which occur in several localities, notably on Controller Bay, encourage the belief that profitable development may take place eventually. Some prospecting has been done in the Controller Bay district.

GYP SUM.

The gypsum deposits in southeastern Alaska were a source of steady production during the year. The total shipments of gypsum in the last fiscal year were 20,480 tons, valued at \$102,400.

MARBLE.

Excellent marble is found in several localities in the southeastern district, and some of the quarries were operated during the year. The commercial shipments of marble were valued at \$44,995.

OTHER MINERALS.

Almost every well-known mineral has been found in the Territory, but there has been little or no commercial production of any except those mentioned heretofore. Antimony, bismuth, cinnabar, graphite, and talc have been found in several localities, while galena has been discovered in quantities which will at some future time probably be mined on a profitable scale.

FISHERIES.

Next to mining, the fishing industry is the most productive industry in the Territory. In the calendar year 1909 there were employed in the several branches of the fisheries 12,588 persons, of whom 2,823 were natives. The investment, exclusive of cash capital, amounted to \$9,881,682, and the finished product of the industry was 201,983,238 pounds, having an export value of \$11,181,388.

SALMON.

The season just closed will be highly profitable to the cannerymen owing to the advance in value of all grades of canned salmon. The total pack of the canneries amounted to about 2,375,000 cases of 4 dozen 1-pound cans each. The business of mild-curing king salmon in southeastern Alaska is increasing rapidly, and the fishermen engaged in this business are receiving remunerative prices for their catch.

The hatching of salmon fry continues under the direction of the United States Fish Commissioner and some of the canneries. The law provides a rebate of a portion of the tax on canned salmon to the canneries maintaining private hatcheries, but does not provide for any check on statements as to the number of salmon fry released each year upon which the rebate depends. This defect in the law should be remedied either by providing that the Bureau of Fisheries, through its agents, determine the accuracy of the claims of the owners of the private hatcheries as to the number of salmon fry released, or by repealing this provision of the law, purchasing the private hatcheries, and turning them over to the bureau to operate. Several new hatcheries should be established by the Government in localities not covered by the present hatcheries.

HALIBUT.

Owing to the unusually high prices received last winter by the fishermen for their halibut, there will probably be a large increase in the fishing fleet next winter.

COD.

The fishing stations in southern Alaska, as well as the Puget Sound and San Francisco fleets, which fish for cod in the waters of southern Alaska and in Bering Sea, are meeting with fair success.

HERRING.

This fish is at present used in the manufacture of oil and fertilizer, and an old established oil and fertilizer factory at Killisnoo maintains a local population of 200 whites and natives. Large quantities of herring are also prepared as food, and are used as bait in the king-salmon and halibut fisheries.

WHALES.

A plant for extracting oil and making fertilizer from whales has been in successful operation at Tyee, Admiralty Island, for the last two years.

The Alaska fishing industry, in branches other than that of canned salmon, which is already highly developed, should be encouraged by every means. Especially should the cod and halibut fisheries be fostered, giving remunerative employment to a large number of men who have little or no capital, but who are fully capable of profitably carrying on these industries. The United States Fish Commission announced last spring that the steamer *Albatross* would soon begin the work of making detailed surveys of halibut and cod fishing

banks on the southern and southeastern coast. The fishermen recognize the value of such surveys, and are keenly desirous that the work be begun as early as practicable.

FORESTS AND TIMBER.

The amount of timber cut from forest reserves in Alaska in the last fiscal year was 15,471,000 board feet. This probably represents not more than one-half of the amount cut in all of Alaska, including cord wood used as fuel. The receipts of the Forest Service in the Territory were \$19,502.02.

As recommended by this office, steps have recently been taken toward the further adaptation of the Forest Service administration to local conditions in Alaska. Provision has now been made for scaling forest-reserve timber at the mill instead of at the place of cutting, thus obviating delays which, although necessary under the former system, were extremely vexatious. Still further reforms are necessary in order that the interests of forest conservation may not prevent or hinder perfectly legitimate development. In the southeastern district, in the region roughly comprised in the main portion of the Tongass National Forest, there is an abundance of overripe timber, some of it of inferior quality, the removal of which would tend to conserve the forests. Persons who may wish to use this overripe and sometimes inferior timber, either for lumber or firewood, should not be required to pay stumpage on it, but should be encouraged to take it away. A reasonable stumpage on cuttings of good trees is not generally resisted by the people, although the conditions of industrial development are generally untoward; but many of the rules and requirements of federal forest supervision which rightly apply in settled countries are out of place in Alaska, and should be either abolished or modified.

Under present conditions of fuel supply in Alaska, and until the Territory reaches a more advanced stage of development, the Government should make no charge on the cutting of firewood, provided, of course, that proper restrictions be placed upon such cutting in respect to the kind and quality of trees to be used.

Steps should be taken without delay to restore large portions, if not all, of the Chugach National Forest to the public domain. Many thousand acres of this reservation are almost treeless, and the conditions are such as to render any measures for the conservation of water absurdly unnecessary. Such scattered timber as may be found for small uses should be freely available to assist in development enterprises and to encourage settlers.

AGRICULTURE AND STOCK RAISING.

Steady progress has been made at all the agricultural experiment stations during the last season. There is no longer a doubt in regard to the agricultural possibilities of Alaska. It has been proved again and again that hardy vegetables and the cereals suited to northern latitudes can be grown in Alaska with excellent success, in fact, almost without failure when the right varieties of grain are selected for culture and seeded and handled in proper manner. It is therefore no longer a question as to whether grain or vegetables can be

grown, but the most important work now consists in testing out and selecting the varieties best suited for the country and in developing new varieties which shall be better suited to the climatic conditions than anything we now have; and this is chiefly the work that has engaged the attention of the agricultural experiment stations during the past year.

At the Rampart station the grain crops have matured as usual. The experimental tests in comparing varieties have yielded the desired information, and a number—that is to say, some dozens—of new varieties have been developed by cross-fertilizing varieties of grain, chiefly barley and oats, which possess the qualities it is desired to perpetuate. How valuable these crosses will prove to be can be determined only by observing their behavior during future seasons. For instance, one of the qualities which all varieties of grain must have to be grown successfully in the interior of Alaska is early maturity. In other words, they must complete the period of growth in about ninety days. There are now early maturing varieties of grain, but they are all found to give a small yield, and they are of slender growth. By cross-fertilizing a vigorous grower of large yield with an early maturing variety it is hoped to develop new varieties which will mature early, grow vigorously, and give a good yield.

At the Sitka station, by similar means, success has been achieved in developing more than a score of varieties of strawberries which seem to be better adapted to Alaska than any of the known cultivated varieties, including those already grown with success in this Territory.

Several new homesteads were taken up by settlers during the last year, and there are a considerable number of settlers who have lived on their homesteads more than five years, but have been unable to secure title to their lands because there was no appropriation of money by the Congress to pay the expenses of surveying. These hardy settlers deserve to be encouraged. It is hoped that the appropriation which was made by the second session of the present Congress for land surveys in Alaska will be renewed for the next fiscal year, so that, after the necessary preliminary work is completed, the lands of homestead settlers who have lived on their claims five years or more may be surveyed.

At the Kodiak Experiment Station the herd of Galloway cattle has done remarkably well. This breed is well adapted to the country, and they are preeminently the breed of cattle for Alaska, in that they are hardy, good rustlers, and can run out as long as there is any feed available, and even then do not require shelter, but can be fed outdoors like range cattle in the States. Their one deficiency is that they are poor milkers. An attempt is being made to develop the milking quality, so as to produce an all-purpose cow. Of course these cattle must be fed whenever the ground is covered with snow, but they can be fed wholly on feed produced in the country. Silage is being made successfully from the native grasses when the weather is too rainy to cure hay, and the same grasses are converted into hay when the weather permits.

Cattle of other breeds have done well on Kodiak Island and in other parts of Alaska for many years, but they are not hardy enough to be termed strictly range cattle. A ranch maintained by a Seattle

company on Kodiak Island made some shipments of native-grown beef to Cordova, the new railway terminal, this year. It was superior to beef brought from the States.

A small flock of hardy sheep has during the last season been added to the live stock at the Kodiak Experiment Station, and sheep breeding will henceforth receive due attention. The surplus stock is sold at reasonable prices to settlers for breeding purposes, with a view to stocking the country with desirable classes of live stock.

PUBLIC SCHOOLS.

Steady improvement has been made in the public-school system, both in the schools provided for white children and for the native children. White schools, supported by local license moneys and taxes, are maintained in the incorporated towns, as follows: Chena, Cordova, Douglas, Eagle, Fairbanks, Haines, Juneau, Ketchikan, Nome, Petersburg, Skagway, Valdez, and Wrangell.

Three new white schools have been established in the last year in settlements other than incorporated towns, and the number of these so-called "Nelson schools" is now 21. The list of white schools outside of incorporated towns is given in the following table:

Statistics of white schools.

Location.	Fiscal year 1909.			Fiscal year 1910.		
	Number of pupils.	Cost of maintenance.	Term.	Number of pupils.	Cost of maintenance.	Term.
			<i>Months.</i>			<i>Months.</i>
Afognak.....	81	\$1,880	9	90	\$2,200	9
Candle.....	19	2,000	9	15	2,400	9
Cleary.....	16	2,055	5			
Council.....	18	1,880	9	14	1,925	9
Ellamar.....	18	1,160	9	29	1,310	8
Graehl.....	25	3,400	9	16	2,400	9
Katalla.....	20	1,500	9	16	1,500	9
Kodiak.....	101	3,405	9	101	1,895	9
Latouche.....	29	650	5			
Longwood.....	65	2,500	9	76	2,450	9
Ouzinkie.....	38	1,491	9	28	1,201	9
Petersburg.....				17	1,200	9
Haines.....	19	553	9	16	1,800	9
Reservation.....	43	3,400	10	47	3,400	10
Seward.....	40	2,300	9	32	2,500	9
Sitka.....	70	3,505	9	63	3,433	9
Tanana.....				20	3,457	12
Teller.....	18	1,950	8	16	1,700	9
Unga.....	28	1,715	9	29	1,715	9
Total.....	648	34,362		621	36,496	

The people throughout the Territory continue to manifest the keenest interest in the public schools, especially in the manual training departments, which have been established in many places.

I urgently renew the recommendation of my immediate predecessor in office that the minimum number of pupils required for the establishment of a new school under the provisions of the act approved January 27, 1905, be reduced from 20 to 15.

Improvement has been made in the means and methods of educating the native inhabitants, a work which is being carried on by four local superintendents and a corps of teachers under the direction of the

Commissioner of Education at Washington. The conduct of these schools is to be praised, but it could be improved by removing the headquarters of administration, as far as these schools are concerned, from the national capital to Alaska, and I recommend that this be done.

The number of native schools has been increased since last year from 69 to 75.

COMPULSORY SCHOOL ATTENDANCE.

Legislation should be enacted requiring the attendance of native children at the government schools provided for their training. A compulsory school attendance law is recommended by every school superintendent and teacher and by all persons who are acquainted with the native people. It is now so well recognized that manual training and instruction in sanitation and hygiene are so necessary to the welfare of the natives that a reasonable statutory provision compelling them to send their children to school is regarded as imperative. There is also some need of such a law applicable to whites.

LABOR.

There has been a moderate demand for laborers in nearly all of the settled portions of the Territory, and in the Copper River Valley the demand was extraordinarily large, about 4,000 men being employed in railroad construction. Labor has been well compensated, and there has been no strike for any cause. The several officers of the government and the local commercial organizations frequently receive inquiries as to the opportunities for laborers in Alaska. The answer to these inquiries is that present conditions do not warrant a large influx of laborers, and that, considering the remoteness of the Territory from the large centers of employment in the States, no man should come here without having engaged work in advance.

RELIEF OF DESTITUTION.

In the smaller settlements, where there are no organized charities, cases are frequently presented of extreme destitution among the white inhabitants, usually arising from physical accidents or illness. I recommend that the act of January 27, 1905, be so amended as to set aside 5 per cent of the Alaska fund for the relief of such cases, under the supervision of the governor.

CARE OF INSANE PERSONS.

The number of Alaska insane persons in the sanitarium at Mount Tabor, Portland, Oreg., is now 122. This is a decrease of 11 since one year ago, although prior to that time the number of Alaska insane had been increasing rather steadily. The insane are cared for at Mount Tabor under a contract made April 28, 1909, at the rate of \$330 per annum per capita. In my opinion, this arrangement is much more satisfactory than the plan proposed of constructing an asylum in Alaska for the care of insane. Their treatment is much more likely to be successful in a climate milder in winter than the interior of Alaska, and less cloudy and rainy than the Alaska coast.

MAIL SERVICE.

Considering the long distances to be covered and the inferior means of transportation on many routes, the mail service is generally excellent. Statements have been received from two of the larger towns in the interior that the winter mail service, although slow, is more dependable than the summer service, and an effort has been made to equalize this condition, which is partly due to irregular steamer sailings and possibly to some mistakes in the dispatch of mails.

I earnestly recommend that a winter mail route from Seward to the Iditarod region, where great mining activity has begun, be established this year.

COAL LANDS.

The ill-advised policy of forbidding all development of the large coal resources of Alaska, or of placing such restrictions upon development as to make the embarkation of private capital impossible, is to be deprecated, while the policy of conservation by proper use is to be encouraged. This coal is needed for the industries of the Territory and for the physical comfort of our people, and on no account should it be withheld from these uses. A sufficient amount of our coal should be mined to meet the needs of the present generation. A large part of the coal used in Alaska is imported from British Columbia, and is made all the more expensive to the consumer because of the payment of duty. By reason of conditions in the British Columbia mines there was an intermittent coal famine in nearly all of the coast towns last winter, even at Cordova, which is situated within a few miles of one of the largest Alaska coal fields, and where the price of soft coal is regularly as high as \$18 per ton.

The present impossibility of mining coal, either under title or lease, is in a measure at least responsible for the suspension of construction on one of the principal railroads, and has caused a general feeling of discouragement over the business situation in those parts of Alaska where development and settlement ought to be going on most rapidly. There are mining and other projects, potentially very large, scattered over a wide area, which can not be undertaken until domestic coal is on the market, but which, with fuel less costly, would be developed on a large scale. The Territory has now reached a point in its industrial progress where further extensive growth is rendered impossible without those strong factors in all such progress—cheap fuel and improved transportation.

In the development of any region the prime necessity of an available fuel supply at low cost is so universally recognized that an extended discussion of the subject is unnecessary. The relation of cheap fuel to railway transportation is, of course, most intimate. Alaska can not become a largely developed or extensively settled Territory without railroads, and the favored tide-water terminals of prospective railroads in Alaska are at points on the coast where the price of imported coal is highest. The building of railroads is positively discouraged, not only by the want of tonnage coal, but by the high cost of fuel for the operation of locomotive engines. It is claimed by the officers of the Alaska-Northern Railway, the construction of which is now at a standstill, that because of the high price of fuel coal it is impossible to handle without loss the small local traffic which is offered

on its 75 miles of road already completed. The fuel coal required to make a round trip, with a light train is said to be about \$150. With coal from the Matanuska fields, situated on the surveyed route of the road the fuel cost would be about \$25. If this reduction in fuel cost were possible, the railway's managers assert, trains could be operated for the accommodation of the public and the development of the surrounding region, yielding a profit to the railway company over and above the bare cost of operation.

In the public discussions of the last year it has appeared that the opposition to opening the Alaska coal fields springs chiefly from two sources—those persons who fear a monopoly and those who would have this coal held as a reserve supply for the future. The present coal-land law (act of May 25, 1908) is not a good law, but it certainly lends no hope to monopolists, but rather is calculated to discourage the embarkation of capital. The public clamor against the patenting of claims, as far as it affects those which were entered honestly, and on account of which the act of May 28, 1908, was passed, means nothing less than that the Federal Government should act in bad faith with these claimants. No honest citizen, unless his views are based on gross misinformation, will advocate the cheating of any claimant under our laws.

The present laws are so unsatisfactory, however, that it is hoped a leasing system for the development of these coal lands may be adopted, after the present claims shall have been disposed of on their merits. It will be found quite feasible, according to the best authorities, to devise suitable terms for leases, protecting both the public and the operators, and insuring intelligent conservation.

The view of the extremist that all the Alaska coal should be kept as a reserve supply for the future has nothing to commend it, and deserves to be condemned by every sincere advocate of conservation. Accepting even the conservative estimate of Mr. Alfred H. Brooks of the Geological Survey that the marketable Alaska coals of the Pacific slope amount to fifty or sixty billion tons, and the further estimate that the present market for these coals, under competitive conditions the existence of which can not be doubted, would be about 1,000,000 tons annually, it is obvious that this coal supply would, at the present rate of consumption, last five or six thousand years. At the end of that period posterity may be using solar energy or some means other than coal for light, heat, and power.

In the interest of general conservation of coal, Alaska coal should be mined and used. For every 5 tons of eastern coal which is brought around Cape Horn to the Pacific coast, approximately 1 ton is burned to make steam for its transportation. To withhold the Alaska coal, therefore, is not conservation, but waste. Moreover, the Atlantic seaboard coal should be kept there, as far as possible, where it is needed and where it will be needed still more in the future, in the centers of population. The Pacific coast annually uses, perhaps 1,000,000 tons of manufactured iron, the transportation of which from the Eastern States consumes a large quantity of coal. This is not conservation, it is waste. Alaska has an abundance of coking coal which, if available, could be used for the manufacture of Pacific coast iron ores, thus not only avoiding the waste of coal now caused by the transportation of eastern manufactured iron, but building up a new industry on the Pacific.

AIDS TO NAVIGATION.

The establishment of light-houses and other aids to navigation is of the highest importance. Several considerations, besides the primary one of protecting the lives of those who travel on ocean-going vessels, emphasize the necessity of more liberal provision for these safeguards. The maritime commerce of Alaska amounts to approximately \$50,000,000 per annum, and freight rates on shipments of merchandise are much higher than would be the case if the coast line were adequately lighted. Until the present year Wrangell Strait, in the southeastern part of the Territory, through which passes, summer and winter, a very large tonnage, was entirely dark; and Tongass Narrows was nearly so.

Several lights have been installed along these tortuous channels this year, but others are needed in adjacent waters, and, in fact, throughout the coast line. The hazard to shipping is regarded by the underwriters as so great that marine-insurance rates are frequently as high as 15 per cent, and after the wreck of the steamship *Yucatan* last winter it was reported that rates on the larger vessels would be increased to 20 per cent in case they should continue to follow the inside route to Prince William Sound. High insurance rates make high freight rates. The installation of proper aids to navigation, such as are found on the Atlantic and Pacific seaboards, and even in Canadian waters immediately adjacent to our own, would be followed inevitably by a reduction of insurance rates and, under a proper condition of competition in the carrying trade, a reduction of freight rates. Such a reduction would be of inestimable economic value to the Territory, reducing the cost of living and making it possible to engage in such mining and other industries as are feasible only when cheap supplies are obtainable and generally lower expenses of operation are to be encountered.

SURVEYS.

The accurate surveying of the coast line and the charting of navigable waters by the Coast and Geodetic Survey is of the utmost importance to the development of the Territory's commerce. The extension of this surveying and charting to important parts of the coast which heretofore have been almost entirely neglected will operate quite as beneficially as does the installation of light-houses and other visible aids to navigation.

The United States Geological Survey has continued its excellent work in Alaska, and the vast territory still to be covered in detail requires that liberal appropriations for the Survey's investigations in this district be made from year to year.

CHANGES IN MINING LAWS.

In the Territories other than Alaska, and in the several States, the existence of local legislative bodies has made it possible to enact mining laws supplementary to the general laws of the United States and suited to local conditions and needs. It is not surprising that in a Territory as remote as Alaska conditions and needs are found which render the general federal mining laws, admirable as they are, inap-

plicable or inadequate in several particulars. The power of attorney, for instance, is almost generally regarded as indispensable; but it is certain that its unrestricted use in Alaska under the general mining laws results in grave evils.

According to the present practice the exercise of powers of attorney frequently retards mineral development. This is especially true when claims are staked in association tracts, it frequently being the case that a single individual holding seven powers of attorney reserves 160 acres of placer ground and holds it from year to year merely by performing \$100 worth of assessment work. The ground is often held for speculative purposes only, and in case the persons who gave the powers of attorney are nonresidents who have never even visited Alaska, speculation is almost certain to be the motive for holding the claim.

These absentees would soon lose their desire to speculate if a law were enacted requiring that assessment work on an association claim be performed to the amount of \$100 for each individual claim of 20 acres. That there is no such law at present is a crying evil, and the interest of every genuine prospector and bona fide resident in Alaska demands that the evil be mitigated.

Also, for the purpose of reducing the bad effects of absenteeism and speculation, the time within which assessment work must be done should be shortened. At present it is possible for the owner of a location made in January of any year—and the owner may be a non-resident who has merely given a power of attorney for speculative purposes—to hold a placer claim almost two years without performing or paying for any assessment work whatever.

NATIVE INHABITANTS.

Several factors have operated for the betterment of the native inhabitant of the Territory. Among these are the reindeer industry, marked improvement in aims and methods of instruction in the schools, and the enforcement of the new law further penalizing the sale of intoxicating liquors to natives. The distribution of reindeer among natives properly trained will greatly improve the conditions of life among the northwestern people, saving them from threatened early extinction. The natives of the southeast (Indians) are in many instances industrious, and almost always law-abiding. Their efficiency in the mines and fisheries is impaired chiefly by the use of liquor; and the enforcement of the act approved February 6, 1909, making whisky "peddling" a felony, resulting in many convictions, has had a beneficial effect. The economic as well as the moral importance of breaking up the sale of liquor among the Indians can not be emphasized too strongly.

Instruction in the manual arts, which has become a prominent feature in nearly all of the native schools, is of the utmost importance. It is well adapted to the needs of the native people, while education in other subjects, except the elementary branches of scholastic work is little suited to their needs, present or prospective. For the present, at least, teaching in native schools should have for its purpose utility, and pupils should be taught to be good natives, whose character, attainments, and environment are dissimilar to those of white people of liberal education. Care should be exercised also not to impair the

independence of the Indians and Eskimos; nor to encourage the belief that any able-bodied person may secure any good thing without effort on his part. The best schools, both government and mission, are those which do not seek the unattainable, or aim to fit any native pupil for work not associated with the improved life of his own people.

The greatest menace to the native people everywhere in Alaska is the presence of infectious diseases. The employment of physicians by the Bureau of Education for the treatment of natives and for their instruction in hygiene and sanitation has brought valuable results, in addition to the work accomplished by the school teachers, and an increase in the number of these should be made possible through liberal appropriations of money for that purpose.

REINDEER.

The development of the reindeer industry for the benefit of the Eskimo inhabitants has been carried forward with marked success. The importation of these useful animals from Siberia in 1892 was continued year by year until 1902, when the shipments ceased, the whole number in Alaska being 4,975, distributed among 9 herds in the northwestern part of the Territory. In 1907 there were 13,839 deer, distributed among 16 herds; and in 1910 the number exceeds 26,000, in 39 herds. An Eskimo becomes the absolute owner of reindeer only after he has served an apprenticeship of five years, and proven his efficiency and fidelity. Although the reindeer industry in Alaska is only 18 years old, it is significant that somewhat more than 50 per cent of the whole number of animals already are owned by natives. The number of individual native owners now exceeds 260.

Commendable progress has been made in all departments of the reindeer service during the last three or four years through wise administration. In the present year 7 new herds have been established in or near native settlements, and it is proposed to establish 6 more herds before the autumn of 1911. Some of the new herds promise the most gratifying benefits, since they will relieve some of the poorer natives, whose former means of livelihood have been impaired by the proximity of white settlements, the disappearance of game, and by other causes. In 1909, the Eskimos of northwestern Alaska derived an income of \$18,212.03 from reindeer products, in addition to the value of skins used for clothing and meat consumed for food by the natives themselves. The civilizing effect of the reindeer industry upon the Eskimos, who are naturally a people of ready intelligence and adaptability, has been remarkable.

The number of reindeer in Alaska promises henceforth to increase with great rapidity. The meat of these animals is a sterling article of food for both whites and natives; and many persons entertain the opinion that the propagation of reindeer and the exportation of reindeer meat to the States will eventually become an industry of extensive proportions, which will yield a large profit to the owners.

SANITATION AND QUARANTINE.

The existence of infectious diseases, alarming in their nature and wide prevalence among the native people, calls for vigorous action. The menace of infection extends to the white inhabitants, for there

are Indian, Eskimo, or Aleut villages in the immediate neighborhood of nearly all the principal towns, and the natives mingle freely among the whites in public places. The conditions have certainly not improved since 1908 when, in southeastern Alaska, a physical examination being made by one of the school physicians of 1,161 natives, 418, or 36 per cent, were found to be affected with tuberculosis, and 308, or 26 per cent, from venereal diseases. Among other diseases prevalent in southeastern Alaska, as well as in several other parts of the Territory, are trachoma and conjunctivitis; and in the Alaska Peninsula are several cases which, after long and careful examination, are strongly suspected to be leprosy.

There is no law which requires the natives to observe any of the ordinary rules of sanitation, and their unfortunate condition is often traceable directly to the filthy condition of their villages and the dwellings in which they live. Yet these people are generally respectful of the law, and a simple set of statutory requirements imposing a mild penalty for nonobservance would unquestionably cause a great improvement in sanitary conditions. The welfare of the white inhabitants as well as that of the natives demands such a law.

It is greatly to be deplored that there is no legal means in Alaska of enforcing a quarantine. The prevalence of the infectious diseases referred to and of dangerous contagious diseases such as smallpox emphasizes the need of a quarantine law.

VITAL STATISTICS.

It is a serious defect of our code of laws that there is no legal requirement for the registration of births, marriages, and deaths in this Territory. Instances have been multiplied in the last few years illustrating in a striking way the evils which must surely result from the absence of vital records, until it is impossible to emphasize too strongly the need of establishing a reliable system of registration. It is probable that such a registration in any territory like Alaska can be accomplished best by requiring reports to be made by physicians, clergymen, and municipal officers to the court commissioners, whose duties under the Civil Code already cover a wide field and whose recording offices are well known to the people of every precinct.

The commissioners might be required to transmit these vital records to the clerk of the court in the proper judicial division for safe-keeping, since each of the federal court-houses is provided with a fireproof vault. The obligations of the marital relation, the administration of wills and the descent of property, as well as other strong considerations of morals and equity, require that vital statistics be recorded; and there have been many distressing consequences of the present condition, which is either one of loosely kept records or no records at all.

A somewhat detailed report, with recommendations on this subject, was made by me to the United States Census Bureau several months ago.

TELEGRAPH SYSTEM.

The military cable and telegraph system, which now extends to nearly every town and mining camp, continues to be of the greatest benefit to the people. The maintenance of some of the land lines

entails great hardship among the men of the Signal Corps, and they are to be commended for their brave efforts which result in keeping the lines open with remarkably few interruptions.

The ocean cable is becoming badly worn in several places, and its natural deterioration will make its replacement by another line necessary within the next few years, unless a large improvement in wireless communication takes place.

FUR-SEAL FISHERIES.

Agents of the Department of Commerce and Labor assumed full control of the sealing operations on the Pribilof Islands upon the expiration this year of the lease held by the North American Commercial Company. Measures for improving the administration of affairs on the islands, particularly in connection with the land and sea patrol, have been made the subject of recommendation in a separate report to the Secretary of Commerce and Labor.

REVENUE-CUTTER SERVICE.

The vessels of the Revenue-Cutter Service, with their officers, continue to perform highly useful and important work on the Alaska coast. Late in 1909 the Treasury Department granted the request that a revenue cutter be stationed permanently in southeastern Alaska waters, with headquarters at Juneau. When available a cutter should also be stationed, summer and winter, at Seward, so that relief may be extended to vessels in distress. A cutter so stationed could have gone to the relief of the wrecked steamer *Farallon* last winter, when it was necessary to send a cutter from Puget Sound.

If an international agreement in regard to pelagic sealing makes it possible to abandon or diminish the patrol off the Pribilof Islands, the revenue cutters now employed there should be distributed among stations throughout the Alaska coast, where they are greatly needed.

PROTECTION OF GAME.

As required by the act approved May 11, 1908, I have made a detailed report of the administration of the Alaska game law for the fiscal year ended June 30, 1910. An appropriation having been made for the purpose in 1909, four game wardens were appointed early in the last fiscal year, and it then became possible to undertake a more effective enforcement of the law. The experience of the last year has shown that the game law, while its general purpose is wise and several of its provisions are excellent, requires several important amendments. In some particulars the law not only fails to accomplish the purpose for which it was framed, but is really unjust to the people. A notable defect in the law is that no open season for game birds is provided in the great region north of latitude 62°.

The appropriation for the enforcement of the game law was large enough to permit the employment of only three wardens regularly. It is recommended that provision be made for the employment of at least five wardens.

FUR-BEARING ANIMALS.

With the increase in the number and size of human settlements the number of fur-bearing animals has decreased, and strict regulations for their protection at proper seasons and during necessary periods are required.

Under the provisions of the new fur-seal law, regulations have been issued by the Secretary of Commerce and Labor for the protection of fur-bearing animals other than seals. Several of these regulations are well adapted to the purpose of protection, but certain others will require modification in order to suit local natural conditions, and a separate report has been made on this subject to the proper department.

HISTORICAL LIBRARY AND MUSEUM.

The collection of books, maps, and charts and of mineral and ethnological specimens comprised in the Alaska Historical Library and Museum has been gradually improved during the year. A notable collection of baskets and of Eskimo ethnological objects has been purchased recently. The late additions to the library have been entirely of books pertaining to Alaska.

Provision will be made in the new territorial office building for the better preservation and display of the museum collection, as well as for the contents of the library.

PUBLIC BUILDINGS.

Authorization was given by the Congress at the last session for the purchase of sites and the construction of two buildings at Juneau, one for the several government offices, including the post-office and custom-house, and the other for the residence of the governor. Sites are about to be acquired for these buildings, and it is hoped that construction will be begun next spring.

SUMMARY OF LEGISLATION NEEDED.

From the foregoing the following summarized statement of legislation which, in my opinion, is most urgently required for the Territory is presented by subjects:

- (1) Opening of the coal lands to development.
- (2) Government aid for railroad construction.
- (3) Continued appropriations for wagon roads and trails.
- (4) Aids to navigation.
- (5) Changes in mining laws.
- (6) Modification of the law relating to salmon hatcheries and rebates to the cannery men.
- (7) Sanitation and public health.
- (8) Registration of vital statistics.
- (9) Compulsory school attendance.
- (10) Relief of destitution among white inhabitants.
- (11) Amendment of the game law.

CONCLUSION.

In connection with the recommendations submitted herein in reference to needed legislation, in some cases requiring an appropriation of money by the Congress, special attention is called to the fact that several of these matters are such as would unquestionably receive favorable consideration if there were in Alaska a local legislative body, or a territorial treasury through which the moneys collected within the Territory could be disbursed. In the absence of such local means, action by Congress, even in the minor affairs pertaining to Alaska, is appropriate and necessary.

In July and August of the present year the Attorney-General of the United States and the Secretary of Commerce and Labor traveled extensively through the Territory. Their visit was extremely gratifying to the people.

Very respectfully, yours,

WALTER E. CLARK,
Governor.

The SECRETARY OF THE INTERIOR.

APPENDIXES.

APPENDIX A.

*Receipts and disbursements of the Alaska Historical Library and Museum fund
from July 1, 1909, to June 30, 1910.*

1909.		RECEIPTS.	
July	1.	Balance last report.....	\$8, 138. 82
July	1.	Frank W. Redwood, notary public.....	10. 00
July	1.	James W. Bell, notary public.....	10. 00
July	9.	Frank W. Thompson, notary public.....	10. 00
July	12.	Albert R. Hellig, notary public.....	10. 00
July	13.	W. H. Woolridge, notary public.....	10. 00
July	17.	Lewis P. Shackleford, notary public.....	10. 00
July	21.	J. T. Riordan, notary public.....	10. 00
July	21.	T. M. Hosking, notary public.....	10. 00
July	21.	G. J. Lomen, notary public.....	10. 00
July	21.	James B. Kinnie, member of bar.....	10. 00
July	28.	C. M. Summers, notary public.....	10. 00
July	30.	G. A. Adams, notary public.....	10. 00
July	31.	E. T. Wolcott, notary public.....	10. 00
July	31.	R. W. Taylor, notary public.....	10. 00
July	31.	C. C. Heid, notary public.....	10. 00
July	31.	Arthur G. Thompson, notary public.....	10. 00
July	31.	A. C. Williams, notary public.....	10. 00
July	31.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed from July 1 to July 31, inclusive, as per itemized statement No. 10.....	158. 50
Aug.	7.	H. C. Bowman, notary public.....	10. 00
Aug.	9.	Nels Sorby, notary public.....	10. 00
Aug.	10.	Andrew N. Thompson, notary public.....	10. 00
Aug.	17.	C. M. Frazier, notary public.....	10. 00
Aug.	19.	F. R. Cowden, notary public.....	10. 00
Aug.	20.	W. H. Ferguson, notary public.....	10. 00
Aug.	24.	C. Harry Woodward, notary public.....	10. 00
Aug.	28.	W. B. Stout, notary public.....	10. 00
Aug.	27.	D. J. Wynkoop, notary public.....	10. 00
Aug.	31.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed from August 1 to August 31, inclusive, as per itemized statement No. 11.....	110. 25
Sept.	3.	J. L. Reed, notary public.....	10. 00
Sept.	3.	Robert Morrison, notary public.....	10. 00
Sept.	10.	Hudson Stuck, notary public.....	10. 00
Sept.	10.	William O'Connor, member of bar.....	10. 00
Sept.	10.	Henry Bleecker, member of bar.....	10. 00
Sept.	10.	Harry E. Pratt, member of bar.....	10. 00
Sept.	20.	W. E. Ross, notary public.....	10. 00
Sept.	20.	E. W. Young, notary public.....	10. 00
Sept.	20.	Paul d'Hermy, notary public.....	10. 00
Sept.	21.	John N. Conna, notary public.....	10. 00
Sept.	25.	William T. Lopp, notary public.....	10. 00
Sept.	27.	Fred Bruhn, notary public.....	10. 00
Sept.	30.	William G. Thomas, member of bar.....	10. 00
Sept.	30.	Simon Hellenthal, member of bar.....	10. 00

*Receipts and disbursements of the Alaska Historical Library and Museum fund
from July 1, 1909, to June 30, 1910—Continued.*

RECEIPTS—continued.

1909.		
Sept. 30.	C. C. Page, member of bar.....	\$10.00
Sept. 30.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed from September 1 to September 30, inclusive, as per itemized statement No. 12.....	107.80
Oct. 7.	S. G. Holt, notary public.....	10.00
Oct. 11.	Andrew Grosvold, notary public.....	10.00
Oct. 13.	L. W. Hayden, notary public.....	10.00
Oct. 13.	John T. Reed, notary public.....	10.00
Oct. 15.	C. E. Wright, notary public.....	10.00
Oct. 21.	J. Allison Bruner, notary public.....	10.00
Oct. 30.	Joseph E. Fox, notary public.....	10.00
Oct. 31.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed, from October 1 to October 31, inclusive, as per itemized statement No. 1.....	70.50
Nov. 1.	Hanford & De Veuve, insurance qualification and power of attorney.....	10.00
Nov. 2.	George Roll, notary public.....	10.00
Nov. 2.	Estelle Fitts, notary public.....	10.00
Nov. 3.	Newark L. Burton, notary public.....	10.00
Nov. 13.	M. S. Brown, notary public.....	10.00
Nov. 13.	James P. Daly, notary public.....	10.00
Nov. 16.	J. Lindley Green, notary public.....	10.00
	issuance of certificates with seal affixed, from November 1 to November 30, inclusive, as per itemized statement No. 2.....	89.50
Nov. 22.	J. M. Neagle, notary public.....	10.00
Nov. 22.	John A. Clark, member of bar.....	10.00
Nov. 29.	A. B. Crane, member of bar.....	10.00
Nov. 29.	Simon Hellenenthal, notary public.....	10.00
Nov. 30.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed, from November 1 to November 30, inclusive, as per itemized statement No. 2.....	89.50
Dec. 1.	Henry Roden, notary public.....	10.00
Dec. 2.	Z. R. Cheney, notary public.....	10.00
Dec. 4.	John G. Held, notary public.....	10.00
Dec. 11.	William S. Bayless, notary public.....	10.00
Dec. 23.	Will G. Graves, member of bar.....	10.00
Dec. 23.	T. P. Geraghty, member of bar.....	10.00
Dec. 23.	O. A. Tucker, member of bar.....	10.00
Dec. 24.	C. E. Bunnell, notary public.....	10.00
Dec. 24.	Truman Northrup, notary public.....	10.00
Dec. 31.	Gustaf A. Olsen, member of bar.....	10.00
Dec. 31.	Charles E. Parkes, notary public.....	10.00
Dec. 31.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed, from December 1, to December 31, inclusive, as per itemized statement No. 3.....	68.00
1910.		
Jan. 3.	Wm. B. Glidden, member of bar.....	10.00
Jan. 3.	Wm. S. Bayless, member of bar.....	10.00
Jan. 4.	H. B. Le Fevre, notary public.....	10.00
Jan. 7.	Phil Abrahams, notary public.....	10.00
Jan. 29.	Phoenix Assurance Company (Limited), power of attorney.....	5.00
Jan. 31.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed, from January 1 to January 31, inclusive, as per itemized statement No. 4.....	73.10
Feb. 12.	H. B. Le Fevre, member of bar.....	10.00
Feb. 12.	Peter F. Vian, notary public.....	10.00
Feb. 19.	Chas. L. Hewes, notary public.....	10.00
Feb. 19.	Mabel E. Curtis, notary public.....	10.00
Feb. 21.	Cyril P. Wood, notary public.....	10.00
Feb. 24.	John Adams, notary public.....	10.00
Feb. 24.	H. P. King, notary public.....	10.00
Feb. 24.	John R. Beegle, notary public.....	10.00

*Receipts and disbursements of the Alaska Historical Library and Museum fund
from July 1, 1909, to June 30, 1910—Continued.*

RECEIPTS—continued.

1910.		
Feb. 28.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed, from February 1 to February 28, inclusive, as per itemized statement No. 5.	\$33. 00
Mar. 12.	James R. Hayden, notary public.	10. 00
Mar. 19.	Clyde A. Thompson, notary public.	10. 00
Mar. 24.	Ralph Donaldson, notary public.	10. 00
Mar. 25.	Fidelity-Phenix Fire Insurance Company, insurance qualification.	5. 00
Mar. 28.	John J. Donovan, notary public.	10. 00
Mar. 28.	W. A. Langille, notary public.	10. 00
Mar. 31.	A. W. Fox, member of bar.	10. 00
Mar. 31.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed, from March 1 to March 31, inclusive, as per itemized statement No. 6.	76. 30
Apr. 9.	North Coast Fire Insurance Company, insurance qualification.	5. 00
Apr. 19.	A. A. Lynden, notary public.	10. 00
Apr. 19.	G. W. Palmer, notary public.	10. 00
Apr. 19.	Alfred E. Maltby, notary public.	10. 00
Apr. 23.	H. B. Parkin, notary public.	10. 00
Apr. 23.	Lynn W. Storm, notary public.	10. 00
Apr. 23.	Frederick Butterworth, notary public.	10. 00
Apr. 23.	Frank H. Bold, notary public.	10. 00
Apr. 25.	John A. Clark, notary public.	10. 00
Apr. 25.	L. V. Ray, notary public.	10. 00
Apr. 25.	Charles A. Borner, notary public.	10. 00
Apr. 30.	George Irving, notary public.	10. 00
Apr. 30.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed, from April 1 to April 30, inclusive, as per itemized statement No. 7.	59. 60
May 9.	C. P. Chesley, notary public.	10. 00
May 9.	Morton E. Stevens, notary public.	10. 00
May 9.	John Young, notary public.	10. 00
May 9.	H. H. Hildreth, notary public.	10. 00
May 19.	Frank B. Hall, notary public.	10. 00
May 21.	J. S. Harding, notary public.	10. 00
May 21.	Allan Pegram Gilmour, member of bar.	10. 00
May 21.	George Woodruff Albrecht, member of bar.	10. 00
May 24.	Arthur W. Fox, notary public.	10. 00
May 27.	Bertha F. Diamond, notary public.	10. 00
May 31.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed, from May 1 to May 31, inclusive, as per itemized statement No. 8.	93. 05
June 4.	John R. Winn, notary public.	10. 00
June 9.	J. P. Rockafellow, notary public.	10. 00
June 15.	Buelah H. Wilson, notary public.	10. 00
June 22.	John W. Dunn, notary public.	10. 00
June 22.	James Christoe, notary public.	10. 00
June 23.	A. T. Whitehead, notary public.	10. 00
June 23.	George W. Albrecht, notary public.	10. 00
June 23.	Blon A. Dodge, notary public.	10. 00
June 25.	Samuel M. Graff, notary public.	10. 00
June 30.	William W. Sale, notary public.	10. 00
June 30.	L. A. Davidson, notary public.	10. 00
June 30.	George Dooley, notary public.	10. 00
June 30.	Receipts from foreign and domestic incorporations and the issuance of certificates with seal affixed, from June 1 to June 30, inclusive, as per itemized statement No. 9.	126. 60
Total.		10, 447. 52

*Receipts and disbursements of the Alaska Historical Library and Museum fund
from July 1, 1909, to June 30, 1910—Continued.*

DISBURSEMENTS.

1909.

July 15.	Lowman & Hanford Stationery and Printing Company, voucher No. 24.....	\$30.83
July 15.	Juneau Transfer Company, voucher No. 25.....	2.65
Aug. 5.	The Fairbanks Times Publishing Company, voucher No. 26.....	36.00
Aug. 5.	The Arthur H. Clark Company, voucher No. 27.....	3.15
Aug. 5.	Scientific American, voucher No. 28.....	112.00
Sept. 8.	C. W. Young Company, voucher No. 29.....	7.00
Sept. 30.	John J. Clarke, voucher No. 30.....	7.28
Oct. 13.	The Hot Springs Echo, voucher No. 1.....	10.00
Oct. 13.	Alaska Transfer Company, voucher No. 2.....	5.50
Oct. 13.	Alaska Daily Record, voucher No. 3.....	315.00
Oct. 28.	R. P. Nelson, voucher No. 4.....	12.25
Nov. 13.	The J. P. Jorgenson Company, voucher No. 5.....	31.00
Nov. 13.	B. M. Behrends Company, voucher No. 6.....	51.70
Nov. 13.	Tanana Leader, voucher No. 7.....	10.00
Dec. 8.	J. C. Ingleby, voucher No. 8.....	1.05
Dec. 18.	Harper Brothers, voucher No. 9.....	11.99
Dec. 18.	The Century Company, voucher No. 10.....	1.14
Dec. 18.	Frederick A. Stokes Company, voucher No. 11.....	2.00
Dec. 18.	Houghton-Mifflin Company, voucher No. 12.....	13.36
Dec. 20.	William Rugg, voucher No. 13.....	12.50
Dec. 29.	Dispatch Publishing Company, voucher No. 14.....	8.00
Dec. 29.	Underwood Typewriter Company, voucher No. 15.....	2.00
Dec. 29.	Juneau Transfer Company, voucher No. 16.....	1.75

1910.

Jan. 4.	The Alaska Daily Record, voucher No. 17.....	8.00
Jan. 4.	C. R. Reid, voucher No. 18.....	10.50
Jan. 5.	R. P. Nelson, voucher No. 19.....	1.25
Jan. 5.	The Macmillan Company, voucher No. 20.....	7.43
Jan. 13.	The Western Methodist Book Concern, voucher No. 21.....	1.50
Jan. 13.	Newbold Publishing Company, voucher No. 22.....	2.80
Jan. 24.	The Alaska Daily Record, voucher No. 23.....	27.90
Jan. 25.	Horlampi Sokoloff, voucher No. 24.....	50.00
Jan. 27.	Alaska Transfer Company, voucher No. 25.....	3.00
Jan. 27.	The Nome Gold Digger, voucher No. 26.....	25.00
Jan. 27.	Doubleday, Page & Co., voucher No. 27.....	37.13
Feb. 1.	John P. Benson, voucher No. 28.....	22.40
Feb. 2.	Edward de Groff, voucher No. 29.....	8.50
Feb. 8.	G. Prince, voucher No. 30.....	20.00
Feb. 18.	C. W. Young Company, voucher No. 31.....	2.65
Feb. 18.	W. H. Case, voucher No. 32.....	9.00
Mar. 7.	The Douglas Island News, voucher No. 33.....	3.00
Apr. 2.	The Alaska Capital, voucher No. 34.....	1.00
Apr. 2.	The Alaska Daily Record, voucher No. 35.....	20.00
Apr. 2.	R. L. Polk & Co. (Incorporated), voucher No. 36.....	10.00
Apr. 23.	John P. Benson, voucher No. 37.....	2.50
May 12.	Post-Intelligencer Company, voucher No. 38.....	6.00
June 8.	The Alaska Daily Record, voucher No. 39.....	2.15
June 16.	Alaska Transfer Company, voucher No. 40.....	5.00
June 25.	L. Van Lehn, voucher No. 41.....	9.10
June 25.	Art Metal Construction Company, voucher No. 42.....	197.00
June 27.	Alaska Transfer Company, voucher No. 43.....	1.50
June 28.	Alaska Steamship Company, voucher No. 44.....	5.45
June 30.	John J. Clarke, voucher No. 45.....	4.97
June 30.	By balance.....	9,260.14

Total..... 10,447.52

APPENDIX B.

OFFICIAL DIRECTORY.

DISTRICT GOVERNMENT.

Governor.—Walter E. Clark, Juneau.

Secretary to the governor.—William H. Loller, Juneau.

Ex officio secretary of Alaska.—William L. Distin, Juneau.

Delegate to Congress.—James Wickersham, Fairbanks.

UNITED STATES CUSTOMS OFFICIALS.

Juneau.—J. R. Willis, collector; C. D. Garfield, special deputy collector; J. F. Pugh, deputy collector and inspector; George M. Simpkins, deputy collector and inspector; S. Irvine Stone, deputy collector and inspector (stationed at Kodiak); E. R. Gray, deputy collector and inspector (stationed at Seward); Harry F. Benson, stenographer and typewriter.

Ketchikan.—Milson S. Dobbs, deputy collector in charge; August Groot, deputy collector and inspector (navigation season); James Millar, deputy collector and inspector (navigation season).

Skagway.—Fred J. Vandewall, deputy collector in charge; G. G. Miller, deputy collector and inspector; H. E. Barrackman, deputy collector and inspector (navigation season).

Wrangell.—F. E. Bronson, deputy collector in charge.

Eagle.—J. J. Hillard, deputy collector in charge; O. F. Horn, deputy collector and inspector (navigation season).

Fortymile.—George W. Woodruff, deputy collector in charge.

St. Michael.—Edward R. Stivers, deputy collector in charge.

Nome.—R. W. J. Reed, deputy collector in charge; F. W. Butters, deputy collector and inspector (navigation season).

Unalaska.—N. E. Bolshanin, deputy collector in charge.

Valdez.—Edward B. Splers, deputy collector in charge.

Cordova.—M. S. Whittier, deputy collector in charge; Wilbur E. Deyo, deputy collector and inspector (navigation season).

Sitka.—George Barron, deputy collector and inspector (navigation season).

Sulzer.—John L. Abrams, deputy collector in charge.

UNITED STATES SURVEYOR-GENERAL'S OFFICE.

Juneau.—William L. Distin, surveyor-general; George Stowell, chief clerk; Martin George, chief draftsman; John J. Clarke, stenographer and typewriter clerk; William F. Jeffreys, transcribing clerk; Leon T. Merry, draftsman; Laurence Delmore, copyist; Samuel R. Gilbert, messenger.

United States deputy surveyors.—A. J. Adams, Valdez; A. G. Blake, Nome; F. Butterworth, Valdez; T. C. Breitenstein, Cordova; B. D. Blakeslee, Nome; F. E. G. Berry, Tacoma; Charles G. Benson, Grants Pass, Oreg.; M. O. Bennett, Katalla; C. E. Davidson, Juneau; C. Estmere, Candle; E. A. Fenton, Fairbanks; Clinton Gurnee, Oakland, Cal.; C. S. Hubbell, Katalla; William A. Hesse, Nome; Udo Hesse, Seattle; C. W. Harrington, Valdez; O. F. Hartline, Tacoma; T. A. Haigh, Cordova; R. A. Jackson, Fairbanks; A. M. Keating, Katalla; Albert Lascy, San Francisco; E. F. Lewis, Seattle; J. L. McPherson, A. G. Mosler, Cordova; L. S. Robe, Fairbanks; R. M. Reese, Katalla; R. W. Sweet, Seattle; D. B. Skinner, Katalla; L. W. Storm, Valdez; N. B. Whitfield, Ketchikan; F. J. Wettick, Juneau.

United States deputy mineral surveyors.—A. J. Adams, Valdez; Banning Austin, Circle; G. E. Baldwin, Valdez; J. C. Barber, Ketchikan; A. G. Blake, Nome; A. H. Bradford, Chignik; F. Butterworth, Valdez; T. C. Breitenstein, Cordova; B. D. Blakeslee, Nome; F. E. G. Berry, Tacoma; W. E. Baldry, Berry; C. G. Benson, Grants Pass, Oreg.; M. O. Bennett, Katalla; H. P. M. Birkinbine, Haines; C. E. Davidson, Juneau; C. Estmere, Candle; E. A. Fenton, Fairbanks; W. A. Fink, Valdez; T. H. George, Gypsum; C. W. Harrington, Valdez; W. A. Hesse, Nome; C. S. Hubbell, Katalla; Udo Hesse, Seattle; Thomas A. Haigh, Cordova; W. L. Hoffeditz, Seattle; O. F. Hartline, Tacoma; R. A. Jackson, Fairbanks; Albert Lascy, San Francisco; A. B. Lewis, Seattle;

J. L. McPherson, Seattle; J. A. McQuinn, Portland; A. I. Oliver, Eagle; L. D. Ryus, Ketchikan; L. S. Robe, Fairbanks; D. B. Skinner, Katalla; L. W. Storm, Valdez; R. J. Sommers, Nome; Duke E. Stubbs, Anvik; C. R. Turner, Malden, Mass.; N. C. Titus, Seattle; N. B. Whitfield, Ketchikan; D. S. Whitfield, Ketchikan; J. P. Whittern, Nome; R. G. Wayland, Treadwell; F. J. Wettrick, Juneau; E. F. Wann, Dawson; A. B. Young, Astoria, Oreg.

UNITED STATES COURTS.

Division No. 1.—Judge, Thomas R. Lyons, Juneau; court stenographer, Ralph E. Robertson, Juneau; clerk of court, Henry Shattuck; Harry Malone, deputy clerk, Juneau; E. W. Pettit, deputy clerk, Juneau; Mrs. H. H. McLellan, assistant clerk, Juneau; Martin Conway, deputy clerk, Skagway; E. S. Stackpole, deputy clerk, Ketchikan; United States marshal, H. L. Faulkner, Juneau; chief deputy, John F. Mullen, Juneau. Deputy United States marshals, Hector McLean, Juneau; H. R. Shepard, Sitka; J. H. Davies, Ketchikan; John F. Collins, Wrangell; William D. McMillan, Douglas; George C. DeHaven, Haines; Fred Fonzo, Skagway; William Fels, Petersburg. United States attorney, John Rustgard, Juneau; assistant United States attorneys, H. H. Folsom, Juneau; George Irving, Ketchikan. United States commissioners, Grover C. Winn, Juneau; William Duncan, Metlakatla; Sidney E. Flower, Sitka; Ernest Kirberger, Kake; Martin Conway, Skagway; W. G. Thomas, Wrangell; Carl Spuhn, Killisnoo; Edward S. Stackpole, Ketchikan; Ed Snyder, Tenakee; John Miller, Petersburg; Charles A. Sulzer, Sulzer; R. M. Odell, Haines.

Division No. 2.—Judge, C. D. Murane, Nome; court stenographer, Mrs. C. J. Nunne, Nome; clerk of court, John H. Dunn, Nome; Thomas Reed, deputy clerk, Nome; Edwin H. Flynn, deputy clerk, St. Michael; United States marshal, Thomas C. Powell, Nome; chief deputy, R. W. Thompson, Nome. Deputy United States marshals, F. A. Newton, Nome; W. W. Riedel, Nome; L. L. Scott, Nome; C. H. Hawkins, Nome; H. H. Darrah, Nome; J. F. Seiner, Nome; D. J. Wynkoop, Solomon; G. W. Johnson, Shelton; H. J. Lee, St. Michael; D. B. Fuller, Council; Roy Davenport, Teller; R. H. Humbler, Candle. United States attorney, B. S. Rodey, Nome; assistant United States attorneys, E. Coke Hill, Nome; N. H. Castle, Nome. United States commissioners, J. F. Hobbes, Nome; G. A. Adams, Council; George J. McLean, Shelton; Joseph H. Wood, Teller; E. H. Flynn, St. Michael; Alfred S. Kepner, Candle; M. F. Moran, Shungnak; W. H. Cox, Kotzebue; Thomas Shaughnessy, Solomon; H. Richmond Marsh, Point Barrow.

Division No. 3.—Judge, Edward E. Cushman, Valdez; court stenographer, Isaac Hamberger, Valdez; clerk of court, Ed. M. Lakin, Valdez; Thomas S. Scott, deputy clerk, Valdez; V. A. Paine, deputy clerk, Valdez; J. J. Hamilton, assistant to clerk, Valdez; United States marshal, Harvey P. Sullivan, Valdez. Deputy United States marshals, J. H. D. Bouse, Valdez; George R. Goshaw, Valdez; Horace C. De Line, Valdez; Albert F. Sullivan, Valdez; F. R. Brenne-man, Katalla; S. T. Brightwell, Cordova; W. H. Whittlesey, Seward; Karl Armstrong, Kodiak; Z. S. Moore, Unga; William J. Morton, Unalaska; Nels Sorby, Dillingham; Joseph L. Brown, Chitina. United States attorney, George R. Walker, Valdez; assistant United States attorneys, Guy B. Brubaker, Valdez; J. Lindley Green, Seward; clerk to United States attorney, Donald A. Stewart, Valdez. United States commissioners: H. H. Hildreth, Knik; W. H. Furgeson, Chitina; J. L. Brown, Unalaska; F. C. Driffeld, Unga; S. Irving Stone, Kodiak; Thomas W. Schultz, Dillingham; F. J. McLean, Iliamna; J. J. Finnegan, Seward; O. A. Tucker, Cordova; G. C. Britton, Katalla; J. L. Reed, Valdez; Ringwald Blix, Copper Center; Herbert S. Farris, Sustina.

Division No. 4.—Judge, P. D. Overfield, Fairbanks; court stenographer, J. J. Hamilton, Fairbanks; clerk of court, C. C. Page, Fairbanks; Edward A. Henderson, deputy clerk, Fairbanks; B. F. de Pencier, assistant clerk, Fairbanks; United States marshal, H. K. Love, Fairbanks; chief deputy marshal, P. G. Charles, Fairbanks. Deputy United States marshals, H. R. Siebe, Kuskokwim Precinct; H. P. Sheppard, Ophir; John J. Donovan, Iditarod; F. W. Wright, Nulato; John H. Robinson, Tanana; Henry C. Quiner, Hot Springs; Charles Snipes, Chatanika; F. C. Irons, Circle; T. W. Howell, Wiseman; C. O. McGillicuddy, Eagle; M. O. Carlson, Fairbanks; A. H. Hansen, Fairbanks; John B. Mathews, Fairbanks. United States attorney, James J. Crossley, Fairbanks; assistant United States attorney, L. R. Gillette, Fairbanks. United States commissioners, John A. Kemp, Steel Creek; J. A. Cameron, Chatanika; R.

M. Dodson, Circle; John F. Dillon, Fairbanks; W. J. Fitzpatrick, Chena; Ernest I. Foster, Glacier; Phil Gallaher, Tanana; A. J. Griffin, Richardson; Wilbur F. Green, Mount McKinley Precinct; Martin E. Heavey, Parks (at Kolmakof); J. H. Hudgin, Rampart; Frank E. Howard, Wiseman; Alfred E. Maltby, Iditarod; S. J. Marsh, Caro; U. G. Myers, Eagle; G. A. Olson, Hot Springs; George Thomas, Dome; W. A. Vinal, Ophir; H. W. Strangman, Nulato.

UNITED STATES LAND OFFICE.

Division No. 1.—C. B. Walker, register, Juneau; P. M. Mullen, receiver, Juneau.

Division No. 2.—John H. Dunn, ex officio register, Nome; T. C. Powell, ex officio receiver, Nome.

Division No. 3.—Ed. M. Lakin, ex officio register, Valdez; H. P. Sullivan, ex officio receiver, Valdez.

Division No. 4.—C. C. Page, ex officio register, Fairbanks; H. K. Love, ex officio receiver, Fairbanks.

DEPARTMENT OF AGRICULTURE.

C. C. Georgeson, special agent in charge of Alaska investigations, Sitka; R. W. De Armond, assistant at Sitka; G. W. Gasser, assistant at Rampart; M. D. Snodgrass, assistant at Kodiak; Laurence Kelly, assistant dairyman, Kodiak; J. W. Neal, assistant at Fairbanks.

EDUCATION.

Walter E. Clark, ex officio superintendent of public instruction of schools outside of incorporated towns for children of white and mixed blood, Juneau.

Native schools.—E. E. Brown, Commissioner of Education, Washington, D. C.; W. T. Lopp, chief of Alaska division, Washington, D. C.; H. C. Sinclair, supply agent, Seattle, Wash.; A. H. Quarles, disbursing agent, Seattle, Wash.; F. G. Waldron, superintendent southeastern district, Juneau; J. H. Romig, superintendent southwestern district, Seward; A. N. Evans, assistant superintendent northern district, Nome; George E. Boulter, assistant superintendent northern district, Tanana; H. O. Schaleben, M. D., assistant superintendent northern district, Kogiung, Nushagak post-office.

Teachers in schools maintained during the fiscal year ended June 30, 1910, for native children.

NORTHERN DISTRICT—ARCTIC SUBDIVISION, NORTH OF YUKON.

Barrow: Chas. W. Hawkesworth, Anna Coodlalook.
Council: Albert B. Kinne.
Deering: Mrs. Fannie L. Newsom.
Diomedes: E. W. Hawkes, Mrs. Flora C. Hawkes, Chas. Menadelook.
Gambell: Edgar O. Campbell, Anna C. Anderson.
Golovin: Anna A. Hagberg, Oscar Naterouk.
Icy Cape: C. H. Adams.
Igloo: H. D. Reese.
Kivalina: Herbert R. York.
Kotzebue: Mrs. Lucy W. Cox, Marie MacLeod.

Noatak: E. M. Harnden.
Nome: Walter C. Shields.
Selawik: Leslie G. Sickles.
Shishmaref: Chas. A. Thompson, M. D.
Shungnak: Eli W. Myers.
Sinuk: Ruth Reat.
Teller: Jorgine C. Enestvedt.
Wainwright: Fay R. Shaver.
Wales: Chester C. Pidgeon, Mary S. Pidgeon, Arthur Nagosruk.
Travelling teacher, Wales: Thomas Ilayok.

NORTHERN DISTRICT—UPPER YUKON SUBDIVISION, EAST OF 156°.

Allachaket: Celia Wright.
Circle: Lucile Owen.
Eagle: Walter R. Nichols.
Kokrines: Julius Jette.
Nenana: Mrs. Margaret L. Ferguson.

Rampart: Wilbur H. McCarty.
Stevens Camp: Mrs. Catherine Kilborn.
Tanana: Benjamin B. Mozee.
Yukon: Noah Davenport.

*Teachers in schools maintained during the fiscal year ended June 30, 1910, for native children—Continued.***NORTHERN DISTRICT—LOWER YUKON SUBDIVISION, WEST OF 156°.**

Akulurak: Mary Laurentia.
 Hamilton: Henry O. Paulson.
 Koerefsky: John Clancy, Mary Bernadette.
 Koyukuk: Mary Watson.
 Louden: H. W. Ehlert.
 Mountain Village: Walter E. Cochran.
 Nulato: Truman Northrup.
 Pilot Station: Henry C. Kinzie.

Russian Mission: C. W. Cook.
 Shageluk: H. Ray Fuller.
 St. Michael: R. W. Thompson, Annie Aloka.
 Unalakleet: Elmer E. Van Ness, Hannah E. Olson.
 Traveling teacher: Unalakleet, Misha Ivanoff.

NORTHERN DISTRICT—BRISTOL BAY SUBDIVISION.

Bethel: Herman Holtmeier, S. H. Rock.
 Chogiung: John C. Lowe.
 Ilamna: Hannah E. Breece.
 Kakanak: Thomas W. Schultz.
 Kinak: E. A. McIntosh, Eula W. McIntosh.

Kogiung: Rudolph Ramsland.
 Nushagak: Chas. W. Wray.
 Quinhagak: Anna C. Rehmel.
 Ugashik: Harry G. Davis.

SOUTHWESTERN DISTRICT—WEST OF 138°.

Copper Center: F. A. Russell, Mrs. F. A. Russell, Lucius A. Jones, Mrs. Minnie H. Jones.
 Kenai: E. D. Evans, Mrs. E. D. Evans.
 Seldovia: Amella D. McMichael.

Tatitlek: Arch R. Law.
 Unalaska: Joseph L. Brown, Mrs. Joseph L. Brown, Olga C. Reinken.
 Yakutat: Mrs. Rebekah B. Young.
 Summer school: Chignik, Lura Young.

SOUTHEASTERN DISTRICT—EAST OF 138°.

Douglas: J. H. Kilbuck, Ruth Kilbuck.
 Haines: Benjamin B. McMullin.
 Hoonah: Jessamine E. Millikan.
 Jackson: Minta Foster.
 Juneau: Sarah I. Haynes.
 Kake: Cora B. Hawk.
 Kasaan: Edith Jones.
 Killisnoo: Isabelle S. Thursby.
 Klawock: Ethel Ellis.
 Klinquan: Nora Dawson, Cecelia Baranovitch.

Klukwan: Nellie M. Taylor.
 Loring: Mary A. Chatfield.
 Petersburg: Carl A. Swanson.
 Saxman: Ethel J. Noble.
 Shakan: Gertrude K. Nielsen.
 Sitka: Cassia Patton, Kathryn P. Dyakanoff.
 Summer schools: Point Ellis, Nellie Mae Taylor; Sitkoh Bay, J. H. Kilbuck.
 Wrangell: Mrs. Ida M. Pusey.

Headquarters and list of physicians and teachers of sanitation.

Akhlok: W. T. Thompson, M. D.
 Deering: B. W. Newsom, M. D.
 Douglas: A. R. Sargeant, M. D.
 Hoonah: Dottie Hewitt.
 Kake: Louise C. McConnel.

Kogiung: H. O. Schaleben, M. D.
 Nulato: W. L. Barbour, M. D.
 Southwestern district: Ada J. Van Vranken.
 Tanana: C. M. Rosin, M. D.

INTERNAL REVENUE.

C. W. Estes, deputy collector, Juneau.

IMMIGRATION SERVICE.

Kazis Krauczunas, inspector in charge of district of Alaska, Ketchikan; Domlanus Maskevicius, immigrant inspector, Nome; ——— Joy, immigrant inspector, Skagway.

STEAMBOAT-INSPECTION SERVICE.

George H. Whitney, inspector of hulls, Juneau; Frank H. Newhall, inspector of boilers, Juneau; Robert C. Hurley, clerk, Juneau; Thomas P. Deering, inspector of hulls, St. Michael; Thomas J. Heeney, inspector of boilers, St. Michael; Jerome A. Desio, clerk, St. Michael.

FOREST SERVICE.

W. A. Langille, forest supervisor, Ketchikan.

BUREAU OF FISHERIES.

John N. Cobb, assistant agent at the salmon fisheries of Alaska.

GAME WARDENS.

Christopher C. Shea, game warden for Kenai Peninsula, Seward; P. F. Vian, game warden for Kenai Peninsula, Kenai; A. R. Garner, game warden for interior of Alaska, Circle.

APPENDIX C.

List of domestic corporations filed in the office of the secretary of Alaska, under amendment to the civil code, chapter 577, of the formation of private corporations, approved March 3, 1903—From April 1, 1903, to June 30, 1910.

	Date filed.
Alaska Placer Mining Company, Nome.....	Aug. 11, 1903
Alaska Packing and Navigation Company, Juneau.....	Aug. 21, 1903
Alaska Nowell Gold Mining Company, Juneau.....	Oct. 15, 1903
Alaska Water Wheel Governor Company, Juneau.....	Feb. 6, 1904
Alaska Publishing Company, Juneau.....	Aug. 8, 1904
Alaska Electric Light and Power Company, Juneau.....	Mar. 15, 1905
Alaska Chief Mining Company, Nome.....	Aug. 3, 1905
Alaska Liquor Company, Fairbanks.....	Sept. 23, 1905
Alaska Steam Laundry, Juneau.....	Dec. 20, 1905
Alaska Powder Manufacturing Company, Wrangell.....	Feb. 15, 1906
Alaska Rubicon Gold Mining Company, Juneau.....	July 6, 1906
Aurora Mining Company, Nome.....	Sept. 20, 1906
Alaska Kotsina Copper Company, Juneau.....	Oct. 18, 1906
Alaska Monthly Magazine Company, Seattle.....	Nov. 6, 1906
Alaska Prospecting and Mining Company, Nome.....	Nov. 8, 1906
Alaska Navigation Company, Ketchikan.....	Dec. 6, 1906
Alsek Fisheries Company, Juneau.....	Apr. 22, 1907
Alaska Water, Light and Telephone Company, Valdez.....	May 31, 1907
Alaska Coast Line Railroad Company, Nome.....	June 28, 1907
Atkinson, M. E., Co., Nome.....	July 22, 1907
Alaska Bottling Company, Valdez.....	Aug. 30, 1907
Alaska Liquor and Trading Company, Valdez.....	Sept. 3, 1907
Alaska Utilities Company, Valdez.....	Sept. 3, 1907
Alaska Prospecting Company, Valdez.....	Sept. 3, 1907
Alaska Construction Company, Valdez.....	Sept. 3, 1907
Alaska Roadhouse Company, Valdez.....	Sept. 3, 1907
Alaska Dock Company, Valdez.....	Sept. 3, 1907
Alaska Coast Company, Valdez.....	Sept. 3, 1907
Alaska Hotel Company, Valdez.....	Sept. 3, 1907
Arctic Siberian Fish Company, Nome.....	Sept. 30, 1907
Arctic Brewing Company, Fairbanks.....	Oct. 24, 1907
Alaska Stibnite Company, Fairbanks.....	Feb. 5, 1908
Alaska Miners Exploiting Syndicate, Nome.....	Feb. 27, 1908
Alaska Lumber Company, Valdez.....	June 2, 1908
Alaska Central Mining Company, Seward.....	July 16, 1904
Alaska Mountain Tunnel Company, Nome.....	Aug. 13, 1908
Alaska Labor Union, Douglas.....	Oct. 9, 1908
Alaska Moose, Order of, Valdez.....	Jan. 15, 1909
Alaska Trust and Development Corporation, Seattle.....	Jan. 16, 1909
Alaska Associated Mercantile Company, Fairbanks.....	May 7, 1909
Alaska Land Company, Seattle.....	May 10, 1909
Ankuty Club of Cordova, Cordova.....	Aug. 9, 1909
Arctic Development Company, Haines.....	Aug. 25, 1909
Alaska Dredging and Hydraulic Mines Company, Valdez.....	Nov. 22, 1909

List of domestic corporations filed in the office of the secretary of Alaska, under amendment to the civil code, etc.—Continued.

	Date filed.
Alaska Transportation Company, Chena.....	May 19, 1910
Beckerof Improvement Company, Kodiak.....	July 19, 1904
Bettles and Samuels Trading Company, Nome.....	Sept. 21, 1903
B. M. Behrends Mercantile Company, Juneau.....	Dec. 2, 1903
B. M. Behrends Company, Juneau.....	Jan. 20, 1904
Blue Goose Mining Company, Nome.....	Sept. 15, 1904
Barthel Brewing Company, Fairbanks.....	Jan. 6, 1905
Beluga Mining Company, of Alaska, Seward.....	Feb. 1, 1905
Blue Bird Mining Company, Nome.....	Nov. 13, 1906
Bank (Inc.), The, Nome.....	June 28, 1907
Bering Lode Mining Company, Nome.....	Sept. 4, 1907
Bainbridge Island Mining and Development Company, Valdez.....	Oct. 15, 1908
B. P. Mining Company, Fairbanks.....	Nov. 16, 1908
Biggs, H. E., Company, Juneau.....	Jan. 11, 1909
Big Four Mining Company, Fairbanks.....	May 10, 1909
Bed Rock Mining and Milling Company, Fairbanks.....	Sept. 27, 1909
Bald Eagle Gold Dredging Company, Nome.....	Nov. 13, 1909
Citizens' Light, Power, and Water Company, Ketchikan.....	Apr. 21, 1903
Copper Center Mining and Trading Company, Copper Center.....	Oct. 24, 1903
Copper Island Mining Company, Ketchikan.....	Nov. 3, 1904
Century Club, Fairbanks.....	Dec. 21, 1904
Cleary Creek Lumber Company, Fairbanks.....	Dec. 16, 1904
Chena Tramway Company, Fairbanks.....	Mar. 22, 1905
Consumers' Milk Company, Nome.....	July 3, 1905
Central Water Company, Nome.....	July 31, 1905
C. W. Young Company, Juneau.....	Oct. 8, 1905
Canyon Creek Gold Mining Company, Seward.....	Mar. 22, 1906
Common Sense Mining Company, Council.....	Sept. 20, 1906
Center Creek Mining Company, Nome.....	June 28, 1907
Clark Lumber Company, Nome.....	July 10, 1907
Cascade Steam Laundry Company, Juneau.....	Sept. 30, 1907
Copper Mountain Mining Company, Nome.....	Oct. 9, 1907
Connelly Quartz Mining Company, Nome.....	Nov. 1, 1907
Chena Lumber and Light Company, Chena.....	Nov. 11, 1907
Conwyl Mining Company, Fairbanks.....	Feb. 5, 1908
Cordova Drug Company, Cordova.....	June 29, 1908
Central Alaska Copper Company, Valdez.....	Aug. 25, 1908
Cordova Publishing Company, Cordova.....	Sept. 12, 1908
Cordova Power Company, Juneau.....	Sept. 16, 1908
Chittitu Gold Mining Company, Valdez.....	Apr. 30, 1909
Cordova Development Company, Cordova.....	June 11, 1909
Caro, J. B., & Co., Cordova.....	Sept. 10, 1909
Cordova Bay Harbor Improvement and Townsite Company, Cordova.....	Sept. 20, 1909
Chena Milling, Smelting, and Refining Company, Chena.....	Apr. 23, 1910
Cliff Mining Company, Valdez.....	May 31, 1910
Continental Copper Company of Alaska, Cordova.....	June 29, 1910
Davidson Improvement Company, Juneau.....	June 22, 1903
Damascus Manufacturing and Milling Company, Seward.....	Oct. 29, 1904
Daniels-Seward Mining and Development Company, Bluff City.....	July 16, 1906
Dahl Creek Mining and Trading Company, Nome.....	Sept. 14, 1906
Douglas Island Miners' Union and Improvement Association, The, Douglas.....	May 4, 1907
Douglas Light Company, Douglas.....	Dec. 19, 1906
Dobbs-Alaska Moving Picture Company, Nome.....	June 8, 1907
Darling & Dean Co., Nome.....	June 24, 1907
Daniels Creek Mining Company, Nome.....	Nov. 1, 1907
Enterprise Mining Company, Nome.....	Apr. 28, 1905
Empire Mining Company, Fairbanks.....	Jan. 7, 1909
Emerald Mining Company, Fairbanks.....	Apr. 1, 1909
Eldorado Mining and Milling Company, Fairbanks.....	June 21, 1909
Ellis Imperial Mines Company, Valdez.....	Mar. 19, 1910
Fairbanks Trading and Transportation Company, Fairbanks.....	Aug. 2, 1906

List of domestic corporations filed in the office of the secretary of Alaska, under amendment to the civil code, etc.—Continued.

	Date filed.
Fairbanks News Publishing Company, Fairbanks	Sept. 14, 1906
Fidalgo-Alaska Copper Company, Valdez	Sept. 3, 1907
Fairbanks Times Publishing Company, The, Fairbanks	Oct. 11, 1907
Fidalgo Mining Company, Fairbanks	May 6, 1908
Fairbanks News Publishing Company, Fairbanks	Dec. 23, 1908
Golden Gate Hotel Company, Nome	July 21, 1904
Gold Run Ditch Company, Nome	Sept. 19, 1904
Gold Bottom Mining Company, Nome	Aug. 23, 1904
George E. James & Co. (Incorporated), Juneau	June 28, 1906
Gillahena Copper Company, Valdez	Dec. 10, 1906
Gold Nugget Mining Company, Valdez	Jan. 20, 1908
Grace-Alice Mining Company, Seward	May 6, 1908
Gotham Mining Company, Seward	Nov. 2, 1908
Goldstake Mining Company, Fairbanks	Feb. 16, 1909
Gold Beach Dredging Company, Nome	Apr. 28, 1909
Giese, J. F., Hardware Company, Nome	July 1, 1909
Happy Four Mining Company, Nome	Oct. 6, 1905
Hunt Lathrop Company, Ketchikan	Nov. 26, 1906
Horseshoe Liquor Company, Valdez	May 7, 1907
Home Power Company, Skagway	May 13, 1908
Harvy Oneman Double Hammer Drill Company, Valdez	Dec. 23, 1908
Homestead Mining Company, Fairbanks	July 13, 1909
Hemple Copper Mining Company, Valdez	May 21, 1910
Incorporation city of Juneau	July 18, 1900
Incorporation town of Eagle	Feb. 9, 1901
Incorporation of Treadwell	Apr. 1, 1901
Incorporation city of Nome	June 30, 1901
Incorporation town of Valdez	Sept. 30, 1901
Incorporation town of Douglas	May 19, 1902
Incorporation town of Wrangell	June 18, 1903
Incorporation of Fairbanks	Dec. 26, 1903
Incorporation of town of Chena	July 21, 1904
Incorporation town of Ketchikan	Apr. 27, 1906
Irving Consolidated Mining Company, Ketchikan	July 26, 1906
Independent Ditch and Power Company, Nome	Nov. 8, 1906
Inter-Island Company, Valdez	Sept. 3, 1907
Incorporation town of Skagway	June 9, 1908
Incorporation town of Cordova	July 1, 1909
Incorporation town of Haines	Jan. 24, 1910
Incorporation town of Petersburg	Mar. 14, 1910
Juneau Steamship Company, Juneau	Sept. 21, 1903
Juneau Packing Company, Juneau	June 2, 1904
Juneau Ferry and Navigation Company, Juneau	Mar. 15, 1905
Juneau Building and Improvement Company, Juneau	May 11, 1905
Jack Pot Mining Company, Nome	June 29, 1906
Johnston-Coutant Company, Juneau	Mar. 28, 1907
J. M. Lathrop Company (Incorporated), Valdez	Dec. 24, 1907
Jupiter-Mars Mining Company, Fairbanks	Mar. 8, 1909
Jupiter-Mars Consolidated Mining Company, Fairbanks	Apr. 1, 1909
Juneau and Douglas Telephone Company, Juneau	Mar. 4, 1910
Ketchikan Power Company, Juneau	May 21, 1903
Kayak Wharf and Townsite Company, Catella	Sept. 23, 1904
Kenai Lumber and Fuel Company, Seward	Mar. 22, 1906
Ketchikan Brick and Tile Company, Ketchikan	Apr. 12, 1906
Ketchikan Printing Company, Ketchikan	Dec. 14, 1906
Ketchikan Gas Company, Ketchikan	May 3, 1907
Kentucky Liquor Company, Juneau	Sept. 16, 1907
Knights Island Copper Mining Company, Valdez	May 21, 1906
Kuskokwim Company, The, Valdez	Aug. 20, 1906
Katalla Drug Company, Katalla	June 29, 1908
Kruzamapa Hot Springs Company, Nome	Aug. 13, 1908
Kuskokwim Trading and Transportation Company, Nome	Aug. 28, 1908
Ketchikan Fisheries Company, Ketchikan	Mar. 20, 1909
Lost River Tin Mining Company, Nome	July 22, 1907
Landlock Bay Copper Mining Company, Valdez	Sept. 3, 1907

List of domestic corporations filed in the office of the secretary of Alaska, under amendment to the civil code, etc.—Continued.

	Date filed.
Lakeview Mining Company, Nome.....	July 22, 1908
Love-Whitley Company, Valdez.....	Aug. 25, 1908
Mystery Mining Company, Nome.....	July 29, 1901
Mutual Commercial Company, The, Valdez.....	Mar. 22, 1906
Mulhollan Camera Button Pusher Company, Juneau.....	Oct. 4, 1906
Miners River Copper and Nickel Mining Company, Valdez.....	July 3, 1907
McLaughlin Gold Mining Company, Juneau.....	Oct. 8, 1906
Mineral Hill Copper Mining Company, The, Valdez.....	Nov. 11, 1907
Miners Dredging Company, Nome.....	Nov. 27, 1907
Matanuska Coal Company, Seward.....	June 9, 1910
Nome Quartz Mining Company, Milwaukee, Wis.....	Nov. 17, 1903
Northwestern Ditch Company, Nome.....	July 3, 1904
North Star Gold Mining Company, Juneau.....	Apr. 3, 1906
Northern Express Company, Valdez.....	Aug. 22, 1905
Nome Cooperative Publishing Company, Nome.....	July 19, 1906
Northwestern Exploration Company, The, Nome.....	Aug. 20, 1906
Nome Ear-Mountain Tin Mining Company, Nome.....	Sept. 14, 1906
Nizini Copper Company, Valdez.....	Dec. 8, 1906
Northern Copper Company, Valdez.....	Jan. 5, 1907
Northland Mining Company, Nome.....	May 13, 1907
Nome Cooperative Publishing Company, Nome.....	June 28, 1907
Nome Public Warehouse Company, Nome.....	July 3, 1907
North Valdez Land Company, Valdez.....	Mar. 13, 1908
North Star Printing and Publishing Company, Valdez.....	Apr. 21, 1909
Nickel-Cobalt Mining Company, Fairbanks.....	Sept. 27, 1909
North Pole Dredging Company, Seattle.....	Dec. 20, 1909
North Star Mining Company of Cordova, Cordova.....	May 19, 1910
Old Crow Liquor Company of Cordova.....	Mar. 24, 1910
Old Gold Mining Company, Nome.....	May 6, 1907
Owl Drug Company, Valdez.....	Aug. 25, 1907
Oro Mining Company, Fairbanks.....	Apr. 23, 1910
Port Valdez Electric Light and Water Company, Valdez.....	Sept. 5, 1905
Port Valdez Investment Company, Valdez.....	Sept. 19, 1905
Prince William Sound Transportation and Trading Company, Valdez.....	Dec. 8, 1906
Prince William Sound Development Company, Seward.....	Mar. 3, 1907
Pacific Coast Trading Company, Seward.....	Apr. 16, 1907
Port Clarence Packing Company, Nome.....	June 28, 1907
Prospector Publishing Company, Valdez.....	Jan. 23, 1908
Petersburg Lumbering and Manufacturing Company, Juneau.....	Jan. 2, 1904
Penny River Ditch Company, Nome.....	Aug. 1, 1908
Rampart Mining and Commercial Company, Rampart.....	Sept. 4, 1903
Rampart Chamber of Commerce, Rampart.....	Oct. 8, 1903
Robinson-Magids Company, Nome.....	Oct. 11, 1906
Reynolds Smelter Company, Valdez.....	Sept. 3, 1907
Randsburg Mining Company, Nome.....	Oct. 30, 1907
Rex Gulch Gold Mining Company, Valdez.....	Apr. 21, 1909
Raymond, H. J., Company, Juneau.....	June 6, 1910
Standard Mining Association of Alaska, St. Michael.....	Aug. 14, 1900
Sawtooth Electric Power Company, San Francisco.....	Feb. 23, 1904
Seward Ditch Company, Nome.....	Oct. 28, 1904
Solomon Quartz Mining Company, Nome.....	Nov. 9, 1904
Seward Light and Power Company, Seward.....	Dec. 21, 1905
Solo Mining Company, Nome.....	Feb. 4, 1906
Seward Construction and Development Company, Seward.....	Feb. 7, 1906
Stedman Hotel Company, Ketchikan.....	May 14, 1907
Sunset Mining Company, Nome.....	June 28, 1907
Seward Peninsula Construction Company, Nome.....	June 28, 1907
Sour Dough Mining and Trading Company, Nome.....	Sept. 14, 1906
Skagway Scenic Cable Company, Skagway.....	May 11, 1908
Seward Drug Company, Seward.....	June 29, 1908
Sheep Creek Mining Company, Juneau.....	Oct. 12, 1904
Seward Real Estate and Investment Company, Seward.....	Dec. 24, 1908
Scheuymere Mining Company, Fairbanks.....	Mar. 3, 1909
Seward Iron Works, Seward.....	Aug. 9, 1909

List of domestic corporations filed in the office of the secretary of Alaska, under amendment to the civil code, etc.—Continued.

	Date filed.
Seward Liquor Company, Seward	Sept. 1, 1909
Silver King Mining Company, Fairbanks	Sept. 10, 1909
Solomon Mining and Dredging Company, Nome	Nov. 5, 1909
Samuels-Tesack-Jekel Company, Nome	Nov. 13, 1909
Shoup Bay Mining Company, Valdez	Nov. 13, 1909
Seward and Kenai Telephone and Electric Power Company, Seward	June 6, 1910
Strandberg-Johnson Mining Company, Fairbanks	June 23, 1910
Tanana Development Company, Eagle	July 24, 1903
Trilby Creek Mining Company, Nome	Sept. 22, 1903
Tanana Trading Company, Fairbanks	Feb. 4, 1905
Tanana Brewing Company, Fairbanks	Feb. 21, 1905
Tillikum Club Company, Valdez	May 9, 1905
The Kenai Mining and Milling Company, Seward	May 9, 1905
Tanana Bottling Works (Incorporated), Fairbanks	Oct. 17, 1906
Tanana Mill Company, Fairbanks	June 16, 1906
T. J. Nestor Company, Nome	Nov. 6, 1906
Tanana Masonic Building Association, Fairbanks	Aug. 28, 1907
Tanana Quartz and Hydraulic Mining Company, Fairbanks	Jan. 7, 1909
Tolovana Mining Company, Fairbanks	Apr. 1, 1909
Tanana Publishing Company, Fairbanks	May 7, 1909
Trustee Company of Cordova, Cordova	May 10, 1909
Tanana Commercial Company, Fairbanks	June 10, 1910
Tillikum Gold Mining Company, Valdez	June 18, 1910
United Ditch Company, Nome	Sept. 29, 1905
United Mine Workers' Improvement Association, Fairbanks	Jan. 20, 1906
Valdez Brewing Company, Valdez	July 22, 1903
Valdez Mercantile Company, Valdez	Aug. 4, 1904
Valdez Real Estate Company, Valdez	Sept. 5, 1904
Valdez Bank and Mercantile Company, Valdez	July 5, 1905
Valdez Dock Company, Valdez	May 17, 1907
Valdez Hotel Company, Valdez	June 28, 1907
Valdez Copper Mining Company of Unakwik, Valdez	July 15, 1907
Valdez Hotel Company, Valdez	Aug. 20, 1907
Valdez Brewing and Bottling Company, Valdez	Jan. 15, 1909
Valdez-Fairbanks Automobile Transportation Company, Valdez	July 9, 1909
Wrangell Electric Light and Power Company, Wrangell	Oct. 24, 1904
Western Trading Company, Juneau	June 18, 1906
Wrangell Boat and Machine Shops, Wrangell	June 28, 1906
Wonder Mining Company, Nome	July 19, 1906
Work Mining and Development Company, Nome	Feb. 11, 1907
Wrangell Shingle Company (Incorporated), Wrangell	Sept. 30, 1907
White Company, Valdez	Feb. 11, 1908
Wilson, James E., Transportation Company, Valdez	Nov. 16, 1908
Winter & Pond Company, Juneau	Jan. 27, 1909
Wood River Consolidated Mining Company, Fairbanks	Oct. 15, 1909
Washington Alaska Gold Mining Company, Juneau	Apr. 26, 1910
Yukon Development Company, Eagle	Dec. 16, 1903

APPENDIX D.

List of documents of foreign corporations filed in the office of the secretary of Alaska, under chapter 23, title 3, of the civil code, approved June 6, 1900—From December 1, 1903, to June 30, 1910.

	Date filed.
Alaska Fishing and Development Company, Stockton, Cal.	Feb. 8, 1905
Alaska Telephone and Telegraph Company, Nome	Mar. 3, 1905
Alaska Marble Company, Juneau	May 5, 1905
Alaska Pacific Railway and Terminal Company, Kayak	May 19, 1905
American Tin Mining Company, San Francisco	May 25, 1905
Alaska Rivers Navigation Company, Skagway	May 24, 1905
Alaska Treasure Consolidated Mines Company, Douglas	Oct. 5, 1905

List of documents of foreign corporations filed in the office of the secretary of Alaska, etc.—Continued.

	Date filed.
Alaska Mercantile Company, Seattle.....	Nov. 15, 1906
Alaska Copper Company, Seattle.....	Nov. 17, 1906
Alaska Calumet Copper Company, Seattle.....	Feb. 9, 1906
Alaska Metals Mining Company, New York City.....	May 18, 1906
Alaska Rivers Navigation Company, Fairbanks.....	July 12, 1906
American Coral Marble Company, Ketchikan.....	July 27, 1906
Alaska Coast Company, Juneau.....	Oct. 29, 1906
Alaska Southern Railway Company, Juneau.....	Nov. 13, 1906
Alaska Copper Corporation, Seward.....	Mar. 14, 1907
Anglo-American Oil and Coal Company, Katalla.....	Apr. 22, 1907
Alaska Fuel, Power, and Transportation Company, Candle.....	May 13, 1907
Alaska Gold Placer Company, Eagle.....	May 14, 1907
Alaska Consolidated Copper Company, Valdez.....	May 20, 1907
American Tin Mining Company of Alaska, York.....	June 11, 1907
Alaska Coast Company, Valdez.....	Aug. 15, 1907
Alaska Gold Dredging Company, Council City.....	Aug. 17, 1907
Alaska Golden Gate Mining Company, Nome.....	Aug. 24, 1907
Alaska American Fish Company.....	Aug. 28, 1907
Alaska Dredging and Power Company.....	Sept. 4, 1907
Alaska Home Railway, Valdez.....	Sept. 10, 1907
Alaska Smelting and Development Company, Seward.....	Sept. 24, 1907
Alaska Galena Company, Ketchikan.....	Sept. 24, 1907
Alaska Coast Fish and Trading Company, Seattle.....	Feb. 17, 1908
Alaska Trokna Mining Company, Wrangell.....	Feb. 17, 1908
Alaska Fish and Cold Storage Company, Wrangell.....	Mar. 16, 1908
Alaska United Copper Exploration Company, Valdez.....	May 18, 1908
Alaska Iron and Steel Company, Skagway.....	May 18, 1908
Alaska Transportation and Trading Company, Skagway.....	May 18, 1908
Alaska Terminal and Navigation Company, Seattle.....	May 29, 1908
Alaska Iron Company, Skagway.....	July 27, 1908
Anchor Fishing and Trading Company, Juneau.....	Aug. 11, 1908
Alaska Bonanza King Mining Company, Juneau.....	Aug. 24, 1908
Arctic Lumber Company, Cordova.....	Feb. 8, 1909
Alaska Anthracite Coal Company, Seattle.....	Mar. 8, 1909
Alaska Clean Smokeless Anthracite Coal Company, Seattle.....	Mar. 8, 1909
Alaska Garnet Mining and Manufacturing Company, Minneapolis.....	Mar. 8, 1909
Alaska Anthracite Coal and Railway Company, Seattle.....	Apr. 19, 1909
Alaska Coal Oil Company, Katalla.....	May 24, 1909
Alaska Gold Dredging Company, Council City.....	May 29, 1909
Alaska Hard Anthracite Coal Company, Seattle.....	July 6, 1909
Amalgamated Wireless Securities Company, Juneau.....	July 27, 1909
Arctic Placer Mining and Milling Company, Seattle.....	Aug. 24, 1909
Alaskan Hoosier Placer Company, Juneau.....	Sept. 1, 1909
Alaska Development and Mineral Company, Juneau.....	Sept. 7, 1909
Alaska Smokeless Coal Company, Seattle.....	Sept. 8, 1909
Alaska Northern Railway Company, Seattle.....	Nov. 18, 1909
Alaska Northwest Mining Company, Juneau.....	Nov. 26, 1909
American Surety Company of New York, Seattle.....	Dec. 24, 1909
Alaska Midland Railway Company, Seattle.....	Jan. 6, 1910
Astoria and Puget Sound Canning Company, Juneau.....	Mar. 14, 1910
Alaska Treasure Gold Mining Company, Juneau.....	Mar. 18, 1910
Alaska Consolidated Mines Company, Juneau.....	May 20, 1910
Bank of Seward, Seattle.....	Apr. 8, 1905
Buckeye Gold Mining Company, Findlay, Ohio.....	Feb. 1, 1906
Bering Shore Mining Company, Nome.....	July 16, 1906
Big Four Ditch Company.....	Oct. 15, 1906
Beaver Mountain Mining Company, Ketchikan.....	Dec. 20, 1906
Boulder-Alaska Copper Company, Boulder Bay.....	Jan. 5, 1907
Besboro Gold and Copper Company, Unalakleet.....	Jan. 16, 1907
Britannia Smelting Company (Limited), Ketchikan.....	Feb. 21, 1907
Boston Exploration Company, Seward.....	Apr. 8, 1907
Big Passage Copper Mining Company, Knights Island.....	Jan. 25, 1908
Blum, S., & Co., Valdez.....	Aug. 25, 1908
Bear Creek Ditch Company, Candle.....	Nov. 6, 1908

List of documents of foreign corporations filed in the office of the secretary of Alaska, etc.—Continued.

	Date filed.
Behring River Railroad Company, Seattle.....	Oct. 30, 1908
Behring Sea Commercial Company, Seattle.....	Apr. 28, 1909
Bering River Alaska Coal Company, Seattle.....	July 6, 1909
Brooklyn Development Company, Juneau.....	Nov. 28, 1909
Blackburn Mines Company, New York.....	Mar. 3, 1910
Cook Inlet Coal Fields Company, Titusville, Pa.....	Apr. 21, 1905
Credic Ditch Company, Nome.....	July 12, 1905
Council City and Solomon River Railway Company, New York.....	Sept. 1, 1905
Continental Distributing Company, Seattle.....	Jan. 7, 1906
Copper River Railway Company, Seattle.....	Feb. 1, 1906
Carlyon-Matheaon Company, Wrangell.....	Mar. 20, 1906
Corson Gold Mining Company, Manchester, N. H.....	Apr. 7, 1906
Chippewa-Alaska Mining Company, Valdez.....	Apr. 12, 1906
Cymru Copper Company, Tacoma.....	May 11, 1906
Central Alaska Company, Seattle.....	June 6, 1906
Canyon Creek Gold Mining Company, Nome.....	July 27, 1906
Consolidated Mining Securities Company, Nome.....	Sept. 14, 1906
Copper River and Northwestern Railway Company, Seattle.....	June 6, 1906
Carstens Packing Company, Juneau.....	Jan. 2, 1907
California Alaska Mining and Development Company, Valdez.....	Jan. 8, 1907
Crown Copper Company, Valdez.....	Feb. 28, 1907
Circle Alaska Mining Company, Deadwood.....	June 28, 1907
Cuprite Copper Company, Ketchikan.....	Aug. 10, 1907
Candle Alaska Hydraulic Gold Mining Company, Candle.....	Sept. 4, 1907
Cascade Mining and Ditch Company, Nome.....	Sept. 4, 1907
Catalla and Carbon Mountain Railway Company, Seattle.....	Nov. 5, 1907
Cape Mountain Tin Mining Company, Alaska, New York City.....	Jan. 15, 1907
Cahoon Creek Placer Company, Porcupine.....	June 22, 1908
Circle Power Company, Nome.....	Oct. 5, 1908
Cordova Electric Telephone and Mill Company.....	Feb. 11, 1909
Cordova Copper Company, Valdez.....	Feb. 20, 1909
Cache Creek Mining Company, Seattle.....	Mar. 8, 1909
Carbon Mountain Anthracite Coal Company, Seattle.....	Apr. 27, 1909
Chignik Coal Mining Company, Seattle.....	May 11, 1909
Charlotte Lake Alaska Coal Company, Seattle.....	May 22, 1909
Council Dredging Company, Council City.....	May 29, 1909
Carbon Mountain Coal Company, Portland, Oreg.....	July 6, 1909
Concord Mining Company, Elkhart, Ind.....	Sept. 25, 1909
Cleveland Coal Company, Seattle.....	Oct. 2, 1909
Cordova-Tacoma Copper Company, Tacoma.....	Nov. 13, 1909
Cincinnati-Alaska Mining Company, Juneau.....	Dec. 13, 1909
Controller Railway and Navigation Company, Juneau.....	Dec. 31, 1909
Controller Bay and Bering Coal Railway Company, Seattle.....	Mar. 10, 1910
Capital Brewing Company of Olympia, Cordova.....	Mar. 31, 1910
Chilkoot Fisheries Company, Juneau.....	May 11, 1910
Deep Gravel Mining Company, Seattle.....	Oct. 27, 1905
Dora Gold Mining Company, Juneau.....	Oct. 27, 1905
Dome City Bank, Dome City.....	Feb. 7, 1907
Dow Development Company, Nome.....	Mar. 8, 1907
Danz Brothers, Valdez.....	May 24, 1907
Dan Creek Gold and Copper Company, Valdez.....	May 31, 1907
Dutton Mining and Smelting Company, San Francisco.....	Feb. 27, 1908
Dan Creek Mining Company, Valdez.....	July 14, 1908
Douglas Island Mining Company, Juneau.....	Aug. 24, 1908
Dominion Commercial Company (Incorporated), Fairbanks.....	June 18, 1910
Eureka Company.....	Sept. 4, 1907
Ellers Music House, Juneau.....	Nov. 19, 1909
El Capitan Mining Company, Juneau.....	May 26, 1910
Fairhaven Water Company, Nome.....	Sept. 13, 1906
Fairhaven Dock and Warehouse Company (Limited), Skagway.....	May 24, 1905
Flambeau-Hastings Company, Nome.....	Oct. 5, 1908
Flyer Transportation Company, Nome.....	June 24, 1907
Fidalgo Mining Company, Ellamar.....	Aug. 7, 1907
First Bank of Katalla, Seattle.....	Nov. 1, 1907
Fairbanks Banking Company, Fairbanks.....	May 10, 1909

List of documents of foreign corporations filed in the office of the secretary of Alaska, etc.—Continued.

	Date filed.
Gold King Mining Company, Juneau.....	Feb. 17, 1905
Galoin Mining and Ditch Company, Seattle.....	July 24, 1905
Golden Dawn Mining Company, Nome.....	Nov. 7, 1905
Galena Bay Mining Company, Valdez.....	Apr. 12, 1906
Gold Beach Development Company, St. Paul.....	Sept. 27, 1906
Great Northern Development Company, Valdez.....	Jan. 8, 1907
Greater Kougarok Ditch and Mining Company, Nome.....	Nov. 4, 1907
Goldcoopers Limited, Fairbanks.....	Dec. 16, 1907
Giant Powder Company (Consolidated), Juneau.....	Aug. 14, 1908
Gold Bullion Mining Company, Seattle.....	Oct. 16, 1908
Gopher-Empire Mining Company, Ketchikan.....	Apr. 19, 1909
Goodro Mining Company, Ketchikan.....	Apr. 10, 1909
Griffin Company, Juneau.....	May 28, 1910
Gold Dredging and Mining Corporation, Seattle.....	June 15, 1910
Hume Packing Company, Wrangell.....	June 16, 1906
Haines Mission and Boundary Railroad Company, Skagway.....	Jan. 21, 1907
Hydah Copper Company, Ketchikan.....	Feb. 7, 1907
Hirsch & Lauter Company.....	Mar. 23, 1907
Hurd & Hayes Company, Fairbanks.....	May 9, 1907
Hetta Mountain Copper Company, Sulzer.....	May 19, 1908
Heckman Fish Trap Company, Seattle.....	Apr. 5, 1909
Hawk Fish Company, Juneau.....	July 22, 1909
Houghton-Alaska Exploration Company, Valdez.....	July 26, 1909
Inmachuk Gold Mining Company, Seattle.....	Sept. 29, 1905
Independent Consolidated Mining Company, Nome.....	July 9, 1908
It Mining Company, Ketchikan.....	May 22, 1909
Juneau Mining and Power Company, Mansfield, Ohio.....	Apr. 7, 1906
Juneau Mining and Power Company, Juneau.....	Nov. 8, 1907
Johnston, D. S., Company, Juneau.....	Nov. 9, 1908
June Mining Company, Seattle.....	Dec. 12, 1908
Keystone Gold Mining Company, Juneau.....	Oct. 23, 1905
Kugarek Mining and Ditch Company, Seattle.....	July 27, 1906
Kasaan Company.....	Oct. 5, 1906
Kennicott Mines Company, Kennicott Mines.....	Jan. 31, 1907
Knights Island Mining and Development Company, Valdez.....	Feb. 6, 1907
Klondike Estates Corporation (Limited), Eagle.....	Mar. 6, 1907
Knights Island Consolidated Copper Company, Valdez.....	Mar. 14, 1907
Kotsina Copper Company, Valdez.....	Mar. 18, 1907
Katalla Company, Katalla.....	Mar. 28, 1907
Keystone Construction Company, Controller Bay.....	Apr. 27, 1907
Ketchikan Consolidated Mines Company, Ketchikan.....	May 31, 1907
Karta Bay Mining Company, Kasaan.....	June 8, 1907
Knights Island-Alaska Copper Company.....	Aug. 15, 1907
Katalla Petroleum Company, Seattle.....	Apr. 25, 1908
Kodiak Coal Mining Company, Uyak.....	July 6, 1908
Kush-Ta-Ka Southern Railway, Seattle.....	Jan. 30, 1909
Katalla-Alaska Anthracite Coal Company, Seattle.....	May 17, 1909
Kupreanof Copper Mining and Smelting Company, Seattle.....	Nov. 24, 1909
Lan De Van Mining and Milling Company, Ketchikan.....	Apr. 17, 1905
Little Georgia Mining Company, Macon Ga.....	Jan. 10, 1906
La Touche Alaska Copper Company, Boulder Bay.....	Jan. 5, 1907
La Touche Copper Mining Company, Latouche.....	May 31, 1907
La Touche Extension Mining Co., Latouche.....	Aug. 7, 1907
La Touche Consolidated Copper Company, Latouche.....	Aug. 15, 1907
Lindenberger, J. (Incorporated), Douglas.....	Oct. 3, 1907
Lituya Bay Company, Seattle.....	Jan. 6, 1910
Manitowoc Furniture Company, Ketchikan.....	May 27, 1905
Maryland-Virginia Mining Company, Nome.....	Aug. 11, 1905
Mount Andrew Mining Company, New York City.....	Oct. 17, 1905
Mead Development Company, Nome.....	Dec. 4, 1905
Moria Copper Company, Ketchikan.....	Apr. 19, 1906
Miners and Merchants' Bank of Ketchikan, Ketchikan.....	May 7, 1906
Moonlight Water Company, San Francisco.....	Sept. 27, 1906
Miners and Merchants' Bank of Candle, Nome.....	Aug. 17, 1907
Minnelaska Mining Company, Sitka.....	May 31, 1907

List of documents of foreign corporations filed in the office of the secretary of Alaska, etc.—Continued.

	Date filed.
Merchants' Savings and Trust Company, Ketchikan.....	Sept. 14, 1907
McKay Company (Incorporated), Cleary.....	Mar. 8, 1907
Mansfield Company, Juneau.....	Jan. 18, 1908
Moosehead Fishing and Mining Company, Juneau.....	Aug. 11, 1908
Minerva Mining and Ditch Company, Nome.....	Aug. 13, 1908
Morris, C. L., Company, Seattle.....	Mar. 29, 1909
McKenzie Anthracite Coal Company, Seattle.....	Apr. 27, 1909
Miners and Merchants' Bank (Incorporated) of Iditarod, Iditarod.....	May 25, 1910
McKay Hydraulic Mining Company, Nome.....	Nov. 1, 1909
McCarthy's Third Holding Company, Philadelphia.....	Apr. 11, 1910
Nome Wharf Company, Nome.....	July 14, 1905
Nome Drill Company, Nome.....	Nov. 7, 1905
North Star Railway Company, Seattle.....	Mar. 10, 1906
Northwestern Development Company, Nome.....	July 27, 1906
Nome Consolidated Mining Company, Nome.....	Sept. 27, 1906
Northwestern Fisheries Company, Seattle.....	May 24, 1905
North American Trading and Transportation Company, Seattle.....	May 29, 1905
Northern Alaska Mining and Trading Company, Seattle.....	Sept. 29, 1905
Nome Bank and Trust Company, Nome.....	Oct. 15, 1906
North Alaska Salmon Company, Hallerville.....	Nov. 14, 1906
Nelson Gulch Mining Company, Old Glory Creek.....	Mar. 28, 1907
North Coast Lighterage Company, Nome.....	Apr. 28, 1907
Nestor Mining Company, Hadley.....	June 11, 1907
Northern Exploration Company, Fairbanks.....	June 14, 1907
Nome Gold Placer Mining Company, Nome.....	Sept. 4, 1907
New Eldorado-Osborne Ditch and Mining Company.....	Sept. 14, 1907
Nome Mining Company, Nome.....	Sept. 20, 1907
North Pacific Wharves and Trading Company, Skagway.....	Nov. 5, 1907
Northern Exploration Company, Valdez.....	Feb. 24, 1908
Northern Navigation Company, Juneau.....	June 1, 1908
Northland Development Company, Seattle.....	July 13, 1908
Nautilus Fishing and Mining Company, Juneau.....	Aug. 11, 1908
New England Fish Company, Ketchikan.....	Sept. 2, 1908
Nugget Mining and Milling Company, Limited, Nome.....	Sept. 14, 1908
Nome Light Company, Seattle.....	June 28, 1909
Natazhat Mining Company, Washington, D. C.....	Aug. 5, 1909
Neuklyk Dredging, Hydraulic and Mining Company, San Francisco.....	Nov. 1, 1909
North Land Steamship Company, Ketchikan.....	Mar. 28, 1910
Northern Improvement Company, Seattle.....	Apr. 21, 1910
Orca Packing Company, Seattle.....	Mar. 15, 1905
Ophir Creek Hydraulic Mining Company, Council.....	Aug. 17, 1905
One Man Mining Company, Valdez.....	Sept. 5, 1905
Omar Mining Company, Ketchikan.....	Sept. 28, 1905
Oelbaum Mining Company, Nome.....	Oct. 5, 1905
Ottumwa Placer Gold Mining Company, Nome.....	Aug. 18, 1906
Old Sea Level Gold Mining and Dredging Company of Nome.....	Aug. 14, 1907
Ottumwa Gold Mining Company, Nome.....	Aug. 13, 1908
Olson Mining Company, New York City.....	June 21, 1908
Port Clarence Gold Mining and Development Company, Nome.....	Sept. 28, 1905
Port Dick Mining and Power Company, Seattle.....	Nov. 17, 1905
Pacific American Fisheries, Juneau.....	May 17, 1906
Porter Fish Company, Seattle.....	June 6, 1906
Portage Mountain Mining Company, Petersburg.....	Oct. 1, 1906
Princeton Mining and Milling Company, Dolomite.....	Oct. 15, 1906
Pittsburg-Dick Creek Mining Company of Alaska, Nome.....	Oct. 18, 1906
Penn Alaska Mining Company, Juneau.....	Feb. 12, 1907
Peninsula Hydraulic Company of Nome.....	Apr. 5, 1907
President Lighterage Company, Nome.....	June 24, 1907
Pacific Marine Supply Company, San Francisco.....	Dec. 4, 1907
Porcupine Gold Mining Company, Seattle.....	Jan. 20, 1908
Pacific Coast Coal Company, Juneau.....	Mar. 25, 1908
Puget Sound Mills and Timber Company, Cordova.....	Aug. 25, 1908
Pedro Dome Tunnel Company, Fairbanks.....	Mar. 22, 1909

List of documents of foreign corporations filed in the office of the secretary of Alaska, etc.—Continued.

	Date filed.
Pittsburg Coal Company, Seattle.....	Oct. 2, 1909
Quartz Creek Mining Company, Seattle.....	Dec. 27, 1909
Rainbow Creek Mining Company of Alaska, Hope.....	Mar. 7, 1905
Rodman Bay Company, Juneau.....	Aug. 19, 1905
Ruby-Boulder Gold Mining Company, Juneau.....	Aug. 7, 1905
Royal Development Company, Seattle.....	Jan. 18, 1906
Rampart Hydraulic Mining Company, Los Angeles.....	Jan. 18, 1906
Reynolds-Alaska Development Company, Boulder Bay.....	Oct. 27, 1906
Russell-Ball Copper Mining Company, Valdez.....	May 20, 1907
Ranous Mining Company, Seattle.....	Mar. 2, 1908
Red Wing Copper Mining Company, Seattle.....	Aug. 3, 1909
Ruby Gold Mining Company, Boston, Mass.....	May 12, 1910
S. Foster Company, San Francisco.....	May 9, 1905
Stewart & Holmes Drug Company, Juneau.....	May 27, 1905
Solomon Mining and Trading Company, Williamstown, Ky.....	Sept. 15, 1905
Standard Mining and Investment Company, Nome.....	Sept. 29, 1905
Scandia Mining Syndicate, Chicago Ill.....	Oct. 27, 1905
Standard Copper Mines Company of Alaska, Valdez.....	May 7, 1906
Seward Mining Company, Seattle.....	June 21, 1906
Seward Cooperative Telephone Company, Nome.....	Aug. 24, 1906
Seattle-Alaska Copper Company, Latouche.....	Nov. 26, 1906
Sperry Mining Company, Nome.....	Jan. 21, 1907
Standard Oil Company, Nome.....	Mar. 8, 1907
Seattle-Alaska Fish Company, Seattle.....	Nov. 19, 1907
Shakan Salmon Company, Juneau.....	Mar. 3, 1908
Superior Candy and Cracker Company, Seattle.....	Mar. 10, 1908
Sledge Fishing and Mining Company, Juneau.....	Aug. 11, 1908
Sunset Mining Company, Ketchikan.....	Dec. 30, 1908
Seattle-Alaska Anthracite Coal Company, Seattle.....	Mar. 8, 1909
Schubach-Hamilton Steamship Company, Seattle.....	June 17, 1909
Seward Peninsula Railway, Seattle.....	Nov. 26, 1909
Seward Peninsula Power Company, Seattle.....	Dec. 10, 1909
St. Elias Packing Company, Juneau.....	May 11, 1910
Tanana Railway Construction Company, Seattle.....	May 11, 1905
Three Friends Mining Company, San Francisco.....	May 24, 1905
Taylor Creek Ditch Company, Seattle.....	May 29, 1905
The Copper River and Northwestern Railway Company, Seattle.....	June 6, 1906
Tanana Electric Company, Fairbanks.....	Sept. 14, 1906
Tanana-Alaska Mines Company, Fairbanks.....	Oct. 18, 1906
Tanana Publishing Company, Fairbanks.....	Dec. 8, 1906
Tanana Valley Railroad Company, Fairbanks.....	Mar. 8, 1907
Threeman Mining Company, Landlock.....	Apr. 11, 1907
Tyee Company, Tyee.....	Aug. 1, 1907
Taral Copper Company, Ellamar.....	Aug. 7, 1907
Uncle Sam Copper Company, Seattle.....	Aug. 11, 1905
United States Alaskan Tin Mining Company, Seattle.....	Mar. 14, 1906
Universal Mining Company, Nome.....	Sept. 27, 1906
United Wireless Telegraph Company, Juneau.....	July 27, 1909
Uhl Brothers, Juneau.....	June 2, 1910
Valdez, Marshall Pass and Northern Railroad Company, Valdez.....	July 12, 1905
Valdez Hydraulic and Gold Mining Company, Valdez.....	Jan. 6, 1906
Valdez-Yukon Railroad Company, Valdez.....	May 14, 1907
Vermont Marble Company, Ketchikan.....	Jan. 13, 1910
Washington-Alaska Bank, Seattle.....	Mar. 20, 1905
Western Meat and Fish Company, Ketchikan.....	Apr. 23, 1907
Werner Gold mining Company, Chicago.....	
Wilson-Kimball Mining Company, Chicago.....	Sept. 23, 1908
Wonder Dredging Company, Seattle.....	Dec. 10, 1909
Wells Bay Zinc Company, Valdez.....	June 18, 1910
Western Alaska Steamship Company, Seattle.....	June 24, 1910
Yukon Transportation and Trading Company, Galena.....	Oct. 9, 1908
Youngstown Coal Company, Seattle.....	Oct. 2, 1909
Yukon-Fairbanks Mining Company, Juneau.....	Jan. 7, 1910
Yukon Express Company, Seattle.....	Apr. 13, 1910
Zarembo Mineral Company, Seattle.....	June 28, 1907

APPENDIX B.

NEWSPAPERS IN ALASKA.

Cordova : Cordova Daily Alaskan. North Star (daily).	Ketchikan : Ketchikan Miner (weekly).
Douglas : The Douglas Island News (weekly).	Kodiak : Orphanage News Letter (monthly).
Fairbanks : The Alaska Citizen (weekly). Fairbanks Daily Times. Fairbanks Daily News-Miner. Miners' Union Bulletin (weekly).	Nome : Nome Daily Nugget. Industrial Workers of the World (weekly).
Haines : The Haines Pioneer Press (weekly).	Seward : Seward Weekly Gateway.
Hot Springs : Hot Springs Echo (weekly).	Sitka : The Thlinget (monthly).
Iditarod City : Iditarod Pioneer (weekly).	Skagway : The Daily Alaskan.
Juneau : Alaska Daily Record. Daily Alaska Dispatch.	Valdez : The Alaska Prospector (weekly).
	Wrangell : The Wrangell Sentinel (weekly).

United States Signal Corps telegraph tariff sheet No. 5, for Alaskan lines.

(Superseding all previous tariffs on and after March 1, 1997. The rate given is in cents per word, the minimum charge for a commercial message being for ten words and for press messages 25 cents.)

[illegible]

APPENDIX G.

IMPORTS AND EXPORTS.

UNITED STATES CUSTOMS SERVICE,
Juneau, Alaska, February 1, 1910.

For the first time since 1906 the annual statement issued by this office shows an increase in Alaska's commerce compared with the previous year. The total business for 1909—over \$80,000,000—is between \$7,000,000 and \$8,000,000 greater than during 1907 and 1908 and is within \$3,000,000 of that for 1906, which was the banner year in the history of the district. The largest growth in any one item of the total trade for 1909 is in the receipts of merchandise from the United States, which shows an increase of almost \$4,000,000 over the figures for 1908. Almost half of this increase is in the division known as "Southern Alaska," and was due to the large shipments of railroad construction material to Cordova.

The value of domestic merchandise shipped from Alaska to the United States is over a million dollars greater than for any previous year.

Commerce of Alaska, calendar years 1907-1909.

	1907.	1908.	1909.
IMPORTS.			
Merchandise from the United States.....	\$17, 273, 945	\$15, 066, 318	\$18, 923, 887
Merchandise from foreign ports.....	960, 669	663, 939	606, 086
Gold and silver from foreign ports.....	3, 389, 461	2, 425, 136	4, 023, 791
Total imports.....	21, 624, 075	18, 155, 393	23, 552, 764
EXPORTS.			
Merchandise to the United States.....	10, 770, 381	12, 255, 265	13, 522, 137
Merchandise to foreign ports.....	2, 128, 157	857, 675	1, 120, 218
Domestic gold and silver to the United States.....	16, 774, 127	18, 044, 533	18, 278, 962
Foreign gold and silver to the United States.....	2, 561, 519	3, 043, 264	3, 845, 705
Total exports.....	32, 234, 184	34, 200, 727	36, 767, 022

Of the foregoing items, the imports of foreign gold, shipments of same to the United States, and exports of merchandise to foreign ports represent, for the greater part, commerce which is only passing through Alaska. The gold is shipped from Dawson and other ports in the Yukon territory through Alaska to the United States, and the greater part of the merchandise exported from Alaska to foreign ports is the growth or product of the United States, whereas the shipments of merchandise to the United States are almost entirely Alaskan products.

Value of domestic merchandise and gold and silver shipped from Alaska to the United States.

	1907.	1908.	1909.
Copper ore and matte.....	\$786, 141	\$502, 448	\$205, 551
Fish:			
Fresh (other than salmon).....	172, 364	232, 774	242, 461
Cured (other than salmon).....	208, 404	167, 932	216, 334
Salmon, canned.....	7, 721, 749	9, 282, 952	10, 424, 811
All other salmon.....	352, 957	438, 367	466, 722
Fish guano.....	21, 195	42, 177	51, 212
Fish and whale oil.....	45, 640	92, 589	141, 522
Furs.....	501, 255	488, 728	758, 160
Gypsum.....	72, 965	84, 025	114, 565
Marble.....	25, 404	50, 255	45, 962
Tin ore and concentrates.....	24, 215	7, 067	8, 200
Whalebone.....	137, 939	191, 062	140, 770
Other merchandise.....	697, 032	674, 878	590, 860
Gold and silver.....	16, 774, 127	18, 044, 533	18, 278, 962
Total.....	27, 544, 508	30, 299, 788	31, 686, 112

It should be remembered that the exports of domestic gold and silver from Alaska to the United States include only regular shipments by freight, express, and registered mail. No attempt is made to secure statistics of gold carried on the persons of travelers, and as there is quite a large amount of gold taken from the district in this manner the total gold production of Alaska is probably between one and two million dollars greater than the shipments reported herein.

Shipments of merchandise from the United States show an increase in every section except southeastern Alaska as compared with the report for 1908, the total increase amounting to nearly \$4,000,000.

Comparative statement, showing value of merchandise shipped from the United States to the different divisions of Alaska.

	1905.	1906.	1907.	1908.	1909.
Southeastern Alaska.....	\$4,048,034	\$4,451,203	\$4,848,491	\$4,722,144	\$4,719,664
Southern Alaska.....	2,750,476	3,205,913	4,566,920	3,731,914	5,554,156
Bering Sea, etc.....	4,681,531	6,051,185	4,298,943	3,317,571	4,040,375
St. Michael and Yukon River....	3,272,411	4,659,844	3,564,591	3,294,689	4,009,692
Total.....	14,761,262	18,368,145	17,273,945	15,066,318	18,323,887

The tables following give the value of merchandise shipped to Alaska from the United States for the year 1909, segregated as to place of consignment, with comparative statements for five years, and general customs business transacted by ports.

Value of merchandise shipped from the United States to southeastern Alaska.

Amalga.....	\$1,724	Killisnoo.....	\$36,795
Baranof.....	469	Klawock.....	51,189
Calder.....	16,484	Klinquan.....	1,804
Chatham.....	61,561	Lake Day.....	13,151
Chichagof.....	12,856	Loring.....	111,182
Chilkoot.....	33,027	Metlakatla.....	32,843
Cape Fanshaw.....	4,133	Petersburg.....	151,253
Copper Center.....	663	Point Ellis.....	24,156
Dolomi.....	6,947	Quadra.....	24,640
Douglas.....	310,908	Santa Ana.....	14,945
Dundas.....	33,399	Shakan.....	39,798
Excursion Inlet.....	50,776	Sitka.....	169,183
Fish Egg Island.....	1,619	Skagway.....	374,573
Funter Bay.....	80,961	Sulzer.....	34,978
Gypsum.....	15,497	Taku.....	29,186
Hadley.....	1,673	Tee Harbor.....	40
Haines and Fort Seward....	243,370	Tenakee.....	6,116
Holbrook.....	325	Treadwell.....	1,287,170
Hoonah.....	8,405	Tyee.....	27,547
Howkan.....	2,557	Windham.....	96
Hunter Bay.....	31,448	Wrangell.....	231,155
Juneau.....	658,768	Yes Bay.....	33,479
Kake.....	9,974		
Kasaan.....	7,654	Total.....	4,719,664
Ketchikan.....	429,179		

Comparative statement of value of merchandise shipped from the United States to principal places in southeastern Alaska.

	1905.	1906.	1907.	1908.	1909.
Douglas.....	\$261,758	\$258,825	\$251,527	\$256,223	\$310,906
Haines.....	178,375	260,991	277,469	289,077	243,370
Juneau.....	711,248	653,287	711,745	639,093	658,768
Ketchikan.....	469,906	724,370	650,249	513,166	429,179
Loring.....	74,288	71,413	122,265	112,525	111,182
Petersburg.....	37,605	89,906	113,166	163,060	151,253
Sitka.....	99,360	125,564	180,120	155,373	169,183
Skagway.....	555,544	557,266	423,680	520,296	374,673
Treadwell.....	740,823	712,790	764,674	843,656	1,287,170
Wrangell.....	137,022	174,457	227,156	243,831	231,155
All other places.....	782,110	822,334	1,126,459	985,844	752,923
Total.....	4,048,034	4,451,203	4,848,491	4,722,144	4,719,964

Value of merchandise shipped from the United States to southern Alaska from Yakutat to Unalaska and Dutch Harbor.

Afognak.....	\$2,547	Kenai.....	14,129
Akutan Harbor.....	1,323	Knik.....	20,154
Alltak.....	38,813	Kodiak.....	82,149
Beluga.....	1,885	Lake Creek.....	19,872
Balboa Bay.....	963	Landlock.....	7,721
Belkofsky.....	235	Latouche.....	27,443
Cape Elizabeth.....	1,084	Orca.....	55,493
Chignik.....	6,368	Pavlof.....	5,079
Chitna.....	110	Pirate Cove.....	30,708
Coal Harbor.....	653	Port Bennett.....	40
Cold Bay.....	2,537	Port Graham.....	60,932
Controller Bay.....	5,545	Sand Point.....	9,273
Cooks Inlet.....	78,496	Seldovia.....	31,252
Copper Center.....	1,456	Seward.....	222,341
Cordova.....	3,066,769	Squaw Harbor.....	440
Drier Bay.....	1,032	Sunrise.....	4,499
Ellamar.....	39,837	Susitna.....	125,441
Fox.....	3,366	Tatitlek.....	1,822
Galena Bay.....	3,308	Tyonek.....	7,364
Girdwood.....	968	Unalaska and Dutch Har- bor.....	44,965
Gulkana.....	1,620	Unga.....	43,083
Hinchinbrook.....	35,228	Uyak.....	231,283
Homer.....	561	Valdez.....	918,372
Hope.....	2,438	Wood Island.....	207
Horseshoe Bay.....	1,105	Yakataga.....	6,009
Karluk.....	139,022	Yakutat.....	71,940
Kasilof.....	413		
Katalla.....	72,810		
Kayak.....	153	Total.....	5,554,156

Comparative statement of value of merchandise shipped from the United States to principal places in southern Alaska.

	1905.	1906.	1907.	1908.	1909.
Chignik.....	\$70,253	\$167,727	\$64,846	\$140,670	\$6,368
Cordova.....	368	239,992	121,017	1,305,168	3,066,769
Ellamar.....	57,719	96,745	79,401	26,758	39,837
Karluk.....	115,221	137,191	180,850	201,280	139,022
Katalla.....	11,748	42,032	1,569,064	93,685	72,810
Kodiak.....	65,817	54,703	61,881	80,973	82,149
Latouche.....	16,017	46,854	108,740	35,787	27,443
Orca.....	40,375	111,084	63,612	55,961	57,493
Seward.....	994,623	800,918	193,947	122,124	222,341
Uyak.....	114,483	50,561	164,469	63,133	231,283
Valdez.....	435,145	863,392	1,411,671	1,120,060	918,372
All other places.....	837,707	592,714	547,422	488,915	690,260
Total.....	2,759,476	3,205,915	4,566,920	3,731,914	5,554,156

Value of merchandise shipped from the United States to all places on Bering Sea and Arctic Ocean except St. Michael.

Bethel	\$12, 873	Kuskokwim	\$41, 154
Bristol Bay	1, 567, 655	Mount Village	1, 017
Candle	33, 262	Nelson's Lagoon	6, 744
Cape Blossom	11, 512	Noatak	391
Cape Vancouver	3, 802	Nome	1, 701, 623
Cheenik	149, 856	Point Barrow	22, 213
Council	33, 755	Point Hope	9, 651
Deering	36, 623	St. Lawrence	673
Diomedes	371	St. Paul	28, 694
Ester	1, 665	Quinhagak	6, 580
Gambell	3, 197	Shishmaref	1, 433
Golovin	67, 960	Sinuk	1, 516
Icy Cape	613	Solomon	29, 514
Igloo	495	Teller and Port Clarence	19, 704
Kewalik	46, 928	Unalaklik	6, 168
Kivalina	768	Wainwright	6, 167
Kobuk	237	Wales	2, 695
Kogiung	156, 481		
Kotlik	1, 643	Total	4, 040, 375
Kotzebue	24, 944		

Comparative statement of value of merchandise shipped from United States to principal places, Bering Sea and Arctic Ocean.

	1905.	1906.	1907.	1908.	1909.
Bristol Bay	\$1, 191, 348	\$1, 296, 751	\$1, 048, 419	\$1, 068, 365	\$1, 567, 655
Candle	11, 359	9, 008	58, 228	33, 221	33, 262
Council	56, 952	189, 376	49, 831	30, 018	33, 755
Deering	17, 934	2, 707	124, 442	46, 834	36, 623
Kewalik	21, 466	151, 558	213, 899	40, 391	46, 928
Nome	2, 922, 082	3, 740, 188	2, 428, 440	1, 834, 934	1, 701, 623
Teller and Point Clarence	104, 306	125, 903	105, 206	42, 407	19, 704
All other places	355, 854	535, 694	265, 478	221, 401	600, 826
Total	4, 681, 331	6, 051, 185	4, 283, 943	3, 317, 571	4, 040, 375

Value of merchandise shipped from the United States to St. Michael and the Yukon Basin.

Akulark	\$1, 845	Innoko	\$23, 034
Anvik	10, 791	Kaltag	6, 837
Arctic City	12, 717	Kokrines	5, 701
Bettles	105, 544	Koserefsky	38, 182
Bluff	21, 514	Koyukuk	5, 796
Chatinika	1, 637	Little Delta	3, 618
Chona	259, 643	Loudon	5, 101
Circle	74, 243	Nation	50
Cleary	171	Nenana	9, 307
Cold Foot	9, 802	Nulato	15, 039
Diskakat	6, 792	Rampart	85, 416
Dome City	13, 608	St. Michael	1, 003, 348
Eagle	323, 824	Stevens Village	720
Fairbanks	2, 305, 993	Tanana	210, 964
Forty Mile River	4, 231	Tolovana	127
Fort Yukon	15, 960	Vault Creek	929
Hamilton	5, 090		
Hot Springs	71, 840	Total	4, 609, 692
Ikogmut	2, 748		

APPENDIX I.

TABLE SHOWING RATE OF WAGES AND COST OF LIVING.

District.	Rate of wages per day.			Cost of living per day.
	Mechanics.	Miners.	Laborers.	
Cordova.....	\$6.00	\$7.50	\$7.00	\$2.50
Fairbanks.....	15.00	7.50	7.00	2.50
Iditarod.....	(a)			
Juneau.....	6.00	3.50	3.00	1.00
Ketchikan.....	6.00	3.50-4.00	3.00-3.50	1.00
Katalla.....			3.00	1.00
Nome.....	10.00	6.25	5.00	1.25
Seward.....	6.00		2.75	1.00
Valdez.....	6.00	4.00-4.50	4.00	1.00

* No standard of wages fixed at this early stage. Wages very high in individual cases. Living expenses high, but gradually lowering.

APPENDIX J.

LEGISLATION PASSED AT SECOND SESSION OF THE SIXTY-FIRST CONGRESS.

[Public—No. 146.]

[S. 7242.]

AN ACT To protect the seal fisheries of Alaska, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of Commerce and Labor shall have power to authorize the killing of fur seals and the taking of sealskins on the Pribilof Islands, in Alaska, under regulations established by him prescribing the manner in which such killing shall be done and limiting the number of seals to be killed, whenever he shall determine that such killing is necessary or desirable and not inconsistent with the preservation of the seal herd: *Provided, however,* That under such authority the right of killing fur seals and taking sealskins shall be exercised by officers, agents, or employees of the United States appointed by the Secretary of Commerce and Labor, and by the natives of the Pribilof Islands under the direction and supervision of such officers, agents, or employees, and by no other person: *And provided further,* That male seals only shall be killed and that not more than ninety-five per centum of three-year-old male seals shall be killed in any one year.

SEC. 2. That any and all sealskins taken under the authority conferred by the preceding section shall be sold by the Secretary of Commerce and Labor in such market, at such times, and in such manner as he may deem most advantageous; and the proceeds of such sale or sales shall be paid into the Treasury of the United States: *Provided,* That the directions of this section, relating to the disposition of sealskins and the proceeds thereof, shall be subject to the provisions of any treaty hereafter made by the United States for the protection of seal life.

SEC. 3. That whenever seals are killed and sealskins taken on any of the Pribilof Islands the native inhabitants of said islands shall be employed in such killing and in curing the skins taken, and shall receive for their labor fair compensation to be fixed from time to time by the Secretary of Commerce and Labor, who shall have the authority to prescribe by regulations the manner in which such compensation shall be paid to the said natives or expended or otherwise used in their behalf and for their benefit.

SEC. 4. That section nineteen hundred and fifty-six of the Revised Statutes of the United States and section one hundred and seventy-three of the act of March third, eighteen hundred and ninety-nine, be amended to read as follows:

"No person shall kill any otter, mink, marten, sable, or fur seal, or other fur-bearing animal, within the limits of Alaska Territory or in the waters thereof;

and every person guilty thereof shall, for each offense, be fined not less than two hundred nor more than one thousand dollars or imprisoned not more than six months, or both; and all vessels, their tackle, apparel, furniture, and cargo found engaged in violation of this section shall be forfeited; but the Secretary of Commerce and Labor shall have power to authorize the killing of any such mink, marten, sable, fur seal, or other fur-bearing animal under such regulations as he may prescribe; and it shall be the duty of the Secretary of Commerce and Labor to prevent the killing of any fur seal except as authorized by law and to provide for the execution of the provisions of this section until it is otherwise provided by law."

SEC. 5. That section nineteen hundred and fifty-nine of the Revised Statutes of the United States and section one hundred and seventy-six of the act of March third, eighteen hundred and ninety-nine, be amended to read as follows:

"The Pribilof Islands, including the islands of Saint Paul and Saint George, Walrus and Otter Islands, and Sea Lion Rock, in Alaska, are declared a special reservation for government purposes; and until otherwise provided by law it shall be unlawful for any person to land or remain on any of those islands, except through stress of weather or like unavoidable cause or by the authority of the Secretary of Commerce and Labor; and any person found on any of those islands contrary to the provisions hereof shall be summarily removed and shall be deemed guilty of a misdemeanor, punishable by fine not exceeding five hundred dollars or by imprisonment not exceeding six months, or by both fine and imprisonment; and it shall be the duty of the Secretary of Commerce and Labor to carry this section into effect."

SEC. 6. That section nineteen hundred and sixty of the Revised Statutes of the United States and section one hundred and seventy-seven of the act of March third, eighteen hundred and ninety-nine, be amended to read as follows:

"It shall be unlawful to kill any fur seal upon the Pribilof Islands, or in the waters adjacent thereto, except under the authority of the Secretary of Commerce and Labor, and it shall be unlawful to kill such seals by the use of firearms or by other means tending to drive the seals away from those islands; but the natives of the islands shall have the privilege of killing such young seals as may be necessary for their own food and clothing, and also such old seals as may be required for their own clothing and for the manufacture of boats for their own use; and the killing in such cases shall be limited and controlled by such regulations as may be prescribed by the Secretary of Commerce and Labor."

SEC. 7. That section nineteen hundred and sixty-one of the Revised Statutes of the United States and section one hundred and seventy-eight of the act of March third, eighteen hundred and ninety-nine, be amended to read as follows:

"It shall be unlawful to kill any female seal or any seal less than one year old at any season of the year, except as above provided; and it shall also be unlawful to kill any seal in the waters adjacent to the Pribilof Islands, or on the beaches, cliffs, or rocks where they haul up from the sea to remain; and every person who violates the provisions of this or the preceding section shall be punished for each offense by a fine of not less than two hundred dollars nor more than one thousand dollars or by imprisonment not more than six months, or by both such fine and imprisonment; and all vessels, their tackle, apparel, and furniture, whose crews are found engaged in the violation of either this or the preceding section shall be forfeited to the United States."

SEC. 8. That section one of the act of December twenty-ninth, eighteen hundred and ninety-seven, be amended to read as follows:

"No citizen of the United States, nor person owing duty of obedience to the laws or the treaties of the United States, nor any person belonging to or on board of a vessel of the United States, shall kill, capture, or hunt, at any time or in any manner whatever, any fur seal in the waters of the Pacific Ocean, including Bering Sea and the Sea of Okhotsk, whether in the territorial waters of the United States or in the open sea."

SEC. 9. That the Secretary of Commerce and Labor shall have authority to appoint such additional officers, agents, and employees as may be necessary to carry out the provisions of this act and the laws of the United States relating to the seal fisheries of Alaska, to prescribe their duties and to fix their compensation; he shall likewise have authority to purchase from the present lessee of the right to take seals on the islands of Saint Paul and Saint George, at a fair valuation to be agreed upon, the warehouses, salt houses, boats, launches, lighters, horses, mules, wagons, and other property of the said lessee on the islands of Saint Paul and Saint George, including the dwellings of the natives

of said islands; he shall likewise have authority to establish and maintain depots for provisions and supplies on the Pribilof Islands and to provide for the transportation of such provisions and supplies from the mainland of the United States to the said islands by the charter of private vessels or by the use of public vessels of the United States which may be placed at his disposal by the President; and he shall likewise have authority to furnish food, shelter, fuel, clothing, and other necessities of life to the native inhabitants of the Pribilof Islands, and to provide for their comfort, maintenance, education, and protection.

SEC. 10. That sections nineteen hundred and sixty-two, nineteen hundred and sixty-three, nineteen hundred and sixty-four, nineteen hundred and sixty-five, nineteen hundred and sixty-six, nineteen hundred and sixty-seven, nineteen hundred and sixty-eight, nineteen hundred and sixty-nine, nineteen hundred and seventy, nineteen hundred and seventy-one, and nineteen hundred and seventy-two of the Revised Statutes of the United States, and all acts and parts of acts inconsistent with this act are hereby repealed. The provisions of this act shall take effect from and after the first day of May, nineteen hundred and ten; and there is hereby appropriated out of any money in the Treasury not otherwise appropriated, the sum of one hundred and fifty thousand dollars for carrying into effect the provisions of this act.

Approved, April 21, 1910.

[Public.—No. 198.]

[S. 621.]

AN ACT Extending the time in which to file adverse claims and institute adverse suits against mineral entries in the District of Alaska.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in the District of Alaska adverse claims authorized and provided for in sections twenty-three hundred and twenty-five and twenty-three hundred and twenty-six, United States Revised Statutes, may be filed at any time during the sixty days period of publication or within eight months thereafter, and the adverse suits authorized and provided for in section twenty-three hundred and twenty-six, United States Revised Statutes, may be instituted at any time within sixty days after the filing of said claims in the local land office.

Approved, June 7, 1910.

[Public.—No. 304.]

[H. R. 24149.]

AN ACT To create, establish, and enforce a minor's labor lien in the Territory of Alaska, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That every miner or other laborer who shall labor in or upon any mine or mining ground for another in the Territory of Alaska in digging, thawing, conveying, hoisting, piling, cleaning up, or any other kind of work in producing any mineral-bearing sands, gravels, earth, or rock, gold or gold dust, or other minerals, or shall aid or assist therein by his labor as cook, engineer, fireman, or in cutting and delivering wood used in said work, or in work in any like capacity in producing the dump; shall, where his labor directly aided in such production, have a lien upon the dump or mass of mineral-bearing sands, gravels, earth, or rocks, and all gold and gold dust, or other minerals therein, and all gold and gold dust extracted therefrom, for the full amount of wages for all the time which he was so employed as such laborer in producing the said dump, within one year next preceding his ceasing to labor thereon; and to the extent of the labor of the said miner or other laborer actually employed or expended thereon, within one year next prior to ceasing to labor thereon, the said lien shall be prior to and preferred over any deed, mortgage, bill of sale, attachment, conveyance, or other claim, whether the same was made or given prior to such labor or not: *Provided,* That this preference shall not apply to any such deed, mortgage, bill of sale, attachment, conveyance, or other claim given in good faith and for value prior to the approval of this act.

SEC. 2. That every laborer, within ninety days after the completion of the performance of the work or labor mentioned in the foregoing section who shall claim the benefit thereof, must, personally or by some other person for him, file for record in the recording precinct where the labor was performed a claim of lien containing a statement of his demand under oath, substantially in the following form:

NOTICE OF LABORER'S LIEN.

TERRITORY OF ALASKA, ——— precinct, ss:

—————, claimant, against ———, defendant.

Notice is hereby given that ———, claimant, claims a lien upon (describing the dump, or mass of mineral-bearing sands, gravels, earth, or rock, and its location with reasonable certainty) in the ——— precinct, in the Territory of Alaska, for labor performed in (digging, and so forth; describe the work). That the name of the owner or reputed owner of the said property is ———, and that ——— is the owner or reputed owner of the mine or mining ground from which the dump or mass of mineral-bearing sands, gravels, earth, or rock and the minerals therein were extracted, and that ——— employed claimant to perform such work and labor upon the following terms and conditions (state substance of contract, if any, or reasonable value); that said contract has been faithfully performed and fully complied with on the part of the claimant, who performed labor thereunder aforesaid for the period of ——— days; that said labor was performed between the ——— day of ——— and the ——— day of ———, and the rendition of said service was closed on the ——— day of ———, and ninety days have not elapsed since that time; that the amount of claimant's demand for said service is ———; that no part thereof has been paid (except the sum of ——— dollars), and there is now due and remaining unpaid thereon, after deducting all just credits and offsets, the sum of ——— dollars, in which amount he claims a lien upon said property.

—————,
Claimant.

TERRITORY OF ALASKA, ——— precinct, ss:

—————, being first duly sworn, on oath deposes and says that I am the claimant (or if by some other person, state the fact) named in the foregoing claim; that I have heard the same read, know the contents thereof, and believe the same to be true.

Subscribed and sworn to before me this ——— day of ———.

—————,
(Officer's title.)

SEC. 3. That the recorder must record every claim filed under the provisions of this act in books kept by him for that purpose, which record must be indexed as deeds and other conveyances are required by law to be indexed, and for which he may receive the following fees and none other: For filing, ten cents; for recording, one dollar; for indexing, fifteen cents for each name.

SEC. 4. That no lien provided for in this act shall bind any property for a longer period than ninety days after the claim has been filed, unless an action be commenced within that time to enforce the same.

SEC. 5. That the action for the foreclosure of the lien provided for in this act shall be begun either in the district court or in the justice's court in the precinct where the lien was filed, and the justices of the peace in Alaska are hereby given full jurisdiction in the foreclosure of such liens under the provisions of this act, and shall also have such other jurisdiction and power as is now conferred on them by law in aid of the enforcement of this act, and the provisions of section seven hundred and twenty-three of chapter seventy-one of the Code of Civil Procedure now in force in Alaska shall be applicable to the jurisdiction intended to be conferred by this act.

SEC. 6. That no mistake, informality, or mere matter of form or lack of statement, either in the lien notice or pleadings, shall be ground for the dismissal or unnecessary delay in the action to foreclose the lien, but the lien notice and pleadings may be amended at any time before judgment, and section ninety-two of chapter eleven of the Code of Civil Procedure now in force in Alaska shall apply to such amendments: *Provided*, That if it be shown that a material statement or averment has been omitted or misstated, it shall be ground for a rea-

sonable delay or continuance to give the defendant a reasonable opportunity to meet it upon amendment.

SEC. 7. That the claimant may file the original or a certified copy of the notice of lien in the district or justice's court as the statement of his case, and thereupon the court or justice shall issue the usual summons directed to the defendant or defendants, which summons, together with a copy of the lien notice, shall, by any officer authorized to serve process, be served upon the defendant or defendants, as provided in sections nine hundred and fifty and nine hundred and fifty-one of chapter ninety-two of the Code of Civil Procedure now in force in Alaska. The summons shall require the defendant or defendants to appear before such court or justice at a time and a place to be named therein, not less than six nor more than twenty days from the date thereof, to answer the demand of the claimant in the said lien notice, or judgment for want of an answer will be taken against them. Service by publication may be had pursuant to sections forty-seven and forty-eight of chapter four of said Code of Civil Procedure. The officer serving the summons shall also immediately post a copy of said lien notice in a conspicuous place on the dump or mass of mineral-bearing sands, gravels, earth, or rock, and gold and gold dust, and other minerals therein upon which the lien is filed, and from the moment of posting the lien notice the dump or mass of mineral-bearing sands, gravel, earth, and rock, and gold and gold dust, and other minerals therein shall be in the custody and under the control of the officer. All persons who claim any interest therein in opposition to the lien claimant may come in and answer and set up and defend their said claims, but no claim or claims of any owner, lessee, or other adverse defendant shall bar the lien claimant from recovering the sum due him for actual labor in producing the said dump or mass of mineral-bearing sands, gravels, earth, or rock, or gold and gold dust, or other minerals.

SEC. 8. That any number of persons claiming liens under this act may join in the same action, and when separate actions are commenced the court may consolidate them. The court shall also allow, as a part of the costs, the moneys paid for filing, recording, and indexing the notice lien, the sum of five dollars for drawing the same, and a reasonable attorney's fee for each person claiming a lien not to exceed ten per centum of the amount of the lien established on judgment. Any contract or agreement or any waiver of any kind made or signed by any minor or laborer whereby it is sought to waive or abandon his right to file a lien under this act, or any agreement for an extended time of payment whereby the same is sought, shall to that extent be null and void as against public policy.

SEC. 9. That in such action judgment must be rendered in favor of each person having a laborer's lien for the amount due him, and the court shall order the dump or mass of mineral-bearing sands, gravels, earth, or rock, and the gold and gold dust, and other minerals therein, subject to the lien to be sold by the marshal in the same manner that personal property is sold on execution; or the court may, upon a showing that it is necessary to do so to preserve the property from loss or waste, by order require the marshal to wash up or extract the gold and gold dust or other mineral from the said mineral-bearing sands, gravels, earth, or rock; or the court may, by order, allow the defendant or defendants or any party interested to wash up and extract the said mineral, in the presence of the marshal or deputy marshal or special officer, who shall take the gold or gold dust or other minerals as it is washed up and extracted and return the same into court, and it shall be immediately paid out as follows: First, the cost of cleaning up or extracting the gold or gold dust or other minerals shall be paid; second, the court costs shall be paid; and, third, the judgment or judgments so rendered in favor of the lien claimants shall be paid; and if there is not sufficient gold or gold dust, or other minerals, or sufficient moneys obtained from the sale of the property to pay all claims in full, the court shall apportion the proceeds to the payment of such judgments pro rata: *Provided*, That no part of any such proceeds shall be paid upon any claim or judgment to any person who did not actually perform labor in producing the dump or the proceeds thereof until all such preferred claims are paid in full.

SEC. 10. That an appeal may be taken from a final judgment of a justice of the peace in actions instituted under this act to the district court, in the manner provided in chapter ninety-seven of the Code of Civil Procedure now in force in Alaska, and upon such appeal being perfected the dump or mass of mineral-bearing sands, gravels, earth, and rock, gold and gold dust, or other minerals shall be washed up by the marshal or any party mentioned in section

mine of this act as the district court may direct, and all the gold or gold dust or other minerals so washed up shall be paid into the registry of the district court there to await the final judgment on appeal: *Provided*, That the gold or gold dust or other mineral in excess of the amount of the judgment, including an additional amount equal to the probable accruing costs on appeal and two years' interest at the legal rate, shall after the expiration of ninety days from the time it was paid into the registry of the district court, be released to the owners upon a showing that no liens have been filed against it. The defendant or defendants, or any one or more of them, may deposit cash in lieu of the gold or gold dust on the dump, which shall remain in the custody of the law until the final judgment, and shall then be applied in payment of the judgment or judgments rendered on each lien claims, and costs, and interest.

SEC. 11. That any person or persons who shall, after the copy of the notice of lien is posted upon any dump or mass of mineral-bearing sands, gravels, earth or rock, gold and gold dust, or other mineral, as provided in this act, and with knowledge of such notice of lien, buy, purchase, wash up, remove, destroy, or carry away all or any part or portion of the same, or the gold or gold dust therein, or who shall render it difficult, uncertain, or impossible to identify the gold or gold dust or other mineral obtained therefrom, shall be liable to the lien holder for the full amount of his judgment and costs; and any person who shall take and carry away all or any part or portion of said dump of mineral-bearing sands, gravels, earth or rock, or the gold or gold dust or other minerals therefrom, after the same shall come into the custody of the officer, shall be guilty of a crime and shall be punished as for the larceny of a like amount; and any district attorney in Alaska is specially required to immediately cause a warrant to be issued for the arrest of any such person or persons and to prosecute them according to law.

Approved, June 25, 1910.

[Public—No. 306.]

[H. R. 24833.]

AN ACT To provide for the care and support of insane persons in the Territory of Alaska.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby established at Fairbanks, in the Territory of Alaska, and at Nome, in the Territory of Alaska, respectively, a detention hospital for the temporary care and detention of the insane, wherein all insane and other patients in charge of the United States marshal shall be detained until transported to the asylum provided by law for their permanent care and cure, or otherwise disposed of as provided by the laws of the United States; and the sum of twenty-five thousand dollars is hereby appropriated out of any moneys in the United States Treasury not otherwise appropriated, not exceeding one-half thereof to be expended in the erection and equipment of the hospital at Fairbanks, and not exceeding one-half thereof to be expended in the erection and equipment of the hospital at Nome.

SEC. 2. That the governor of Alaska and the judge of the district court and the United States marshal of the judicial division in which the said detention hospital, respectively, is to be erected and equipped, shall constitute in each division a board whose duty it shall be to cause the said detention hospital to be erected and equipped; that public bids for the erection of the same shall be called for, and the said board shall let the contract for the erection of the buildings, respectively, to the lowest and best bidder, but the said board may reject any or all bids and call for new bids in their discretion; that the moneys hereby appropriated, or so much thereof as shall be necessary, shall be expended by the said board upon the approval of the governor; and the said board in each division shall make a detailed report of the expenditures of the said funds to the Attorney-General of the United States; that the said hospitals, after their erection and equipment, shall be under the charge and control of the United States marshal in the division where situated, and the maintenance thereof shall be paid in the same manner and from the same fund as the expense of the United States jails under the same marshal is paid.

Approved, June 25, 1910.

APPENDIX K.

REGULATIONS CONCERNING NATIONAL FORESTS.

The regulations governing national forests are given below. These forests are in charge of the Forest Service and all communications should be addressed to that organization.

REGULATION 3. Persons having valid claims under the public-land laws or legal titles to lands within national forests are free to occupy and enjoy their holdings, but must not interfere with the purposes for which the forests are created, and must not cut timber or make use of national forest land without a permit, except within the limits and for the actual development of their claims. Any other use is forbidden.

REGULATION 4. The supervisor may, within six months from the cancellation or abandonment of any claim to land in a national forest, permit the claimant to remove his improvements if such removal will not injure national forest interests.

REGULATION 5. Squatters who settled on national forest land before its withdrawal and who are awaiting survey to make entry have the same rights to occupy and enjoy their holdings as homestead entrymen, and may at their option await survey or apply for the examination of their lands under the act of June 11, 1906, with a view to opening them to homestead entry.

REGULATION 6. Permits are necessary for all occupancy, uses, operations, or enterprises of any kind within national forests, whether begun before or after the national forest was established, except: (a) Upon patented lands; (b) upon valid claims for purposes necessary to their actual development and consistent with their character; (c) upon rights of way amounting to easements for the purposes named in the grants; (d) prospecting for minerals, transient camping, hunting, fishing, and surveying for lawful projects.

REGULATION 7. Permits for the use of the national forests, unless otherwise specifically fixed by regulation, may be granted by the Forester for any term consistent with national forest interests. The Forester may also make a reasonable charge for any permit, right, or use.

REGULATION 8. Permits are not assignable, and abandonment in favor of another necessitates new application and permit. In case of abandonment and issuance of new permit, the original permittee may sell his improvements to the new permittee, and any payments made by him may apply on the new permit, in the discretion of the Forester.

REGULATION 9. Occupancy under permit secures no right or claim against the United States, either to the land or to any improvements upon it, beyond the uses conferred by the permit. Improvements made by the permittee, except fences, may not be removed except with the written consent of the supervisor.

REGULATION 10. The Forester and such officers as he may designate may issue, extend, renew, or revoke permits for special uses within national forests, with such conditions as to area, time, and requirements as they may deem best, and they may make reasonable charges for such permits.

REGULATION 11. National forest material may be taken without previous permit in serious emergencies for the protection of life or property, provided a permit for the material so used and for the special use involved is secured at the earliest opportunity.

REGULATION 12. No permit is necessary for the construction of wagon roads by States or counties over national forest lands. Forest officers will confer and cooperate with the authorities in charge of the construction of such roads as to the disposal of refuse and other safeguards to prevent injury to the national forests. With this exception, permits are necessary for the construction of all wagon roads over national forest lands. Trails may be constructed over national forest lands with the consent and under the supervision of a forest officer. Permission to construct roads and trails over national forest lands will not give any right to exclusive use, or to charge toll, or against future disposal of the land by the United States.

REGULATION 13. The supervisor may, in his discretion, permit to any road district, county, person, or corporation the free use of timber, stone, sand, gravel, and other national forest products for the construction, maintenance, or repair of roads or trails within national forests, without prejudice to any free-use

* Regulations 1 and 2 refer to internal administration.

application they may make in the same year for material for other purposes, when such roads or trails are of sufficient public benefit to justify the free use.

REGULATION 14. Applicants for wagon-road or trail construction who are not entitled under Regulation 12 to free-use permit must pay for all merchantable timber cut or destroyed within the right of way, under timber-settlement regulations; or, if national forest timber outside the right of way is required for construction or repair, under timber-sale regulations.

REGULATION 15. A county road established prior to the creation of a national forest may be changed, widened, or repaired by the county authorities without permit, if the operations are within the right of way fixed for such roads by the state law.

REGULATION 16. Applications for special-use permits for commercial power plants shall consist of maps in duplicate, on tracing linen, showing the project as surveyed, and field notes in duplicate. Both maps and field notes must be verified by the surveyor's certificate under oath. If the use of water is involved, the applications must be accompanied by certified evidence, in duplicate, of water right or appropriation under the local laws. All such applications by corporations must be accompanied by duly certified copies of the companies' articles of incorporation, in duplicate, unless such evidence has already been filed with the Forester.

REGULATION 17. If any person shall make a false surveyor's certificate under Regulation 16, the Forester will order that no map or field notes made by such person shall be received or filed.

REGULATION 18. If an applicant shall offer or file any map or field notes bearing a false surveyor's certificate or oath, knowing the same to be false, the Forester will order that no application shall be received from, and no sale, permit, or use shall be granted to, such applicant while the order stands.

REGULATION 19. The following acts within national forests are hereby forbidden:

(a) Squatting upon land within a forest, or making settlement, except in accordance with the act of June 11, 1906.

(b) Building roads, trails, railways, or tramways, and constructing ditches, dams, canals, pipe lines, flumes, tunnels, or reservoirs without a permit, or in violation of the terms of a permit, except as otherwise allowed by law, and except upon patented land, or upon a valid claim when necessary for the actual development of such claim consistent with the purposes for which it was initiated.

(c) Erecting or conducting telephone, telegraph, or power lines, hotels, stores, sawmills, power plants, or other structures, or manufacturing or business enterprises, or carrying on any kind of work, except as allowed by law and national forest regulations, and except upon patented land or upon a valid claim for the actual development of such claim, consistent with the purposes for which it was initiated.

REGULATION 20. Whenever a right of way under the jurisdiction of the Secretary of the Interior is located upon a national forest, the Forester may, in his discretion, before making recommendation that it be approved, require the applicant to execute such stipulation and bond as he may deem necessary for the protection of national forest interests.

REGULATION 21. The Forester may, with as little expense to the Government as possible, dispose of any timber upon the national forests, by sale or otherwise, when such disposal is actually necessary to protect the forests from ravages or destruction, or when the timber is necessary for use in improvements to the national forests or in experiments conducted by the Forest Service.

REGULATION 21a. When the destruction or use of national forest products or resources will result in benefit to the Government through actual protection or improvement of a national forest, the Forester may, without charge, allow such destruction or use, even to parties not otherwise entitled to regular "free-use" permit.

REGULATION 22. Free-use permits may be granted to settlers, farmers, prospectors, or similar persons who may not reasonably be required to purchase, and who have not on their own lands or claims, or on lands controlled by them, a sufficient or practicably accessible supply of material suitable for the purposes named in the law. They may also be granted to school and road districts, churches, or cooperative organizations of settlers desiring to construct roads, ditches, reservoirs, or similar improvements for mutual or public benefit. Free use of material to be used in any business will be refused, as, for example, to sawmill proprietors, owners of large establishments, or commercial enterprises,

companies, and corporations. No trespasser is entitled to free use. Green saw timber will not be granted to any applicant who does not do his own logging, unless he is physically incapacitated. Exceptions, however, may be made in unusual cases in the judgment of the supervisor. On forests where a limited supply requires it, the free use of all saw timber may be refused. Necessary cutting of timber in surveying for lawful projects may be done without permit. Unnecessary cutting is trespass.

REGULATION 23. No applicant will be given more than two free-use permits in one year, nor may the aggregate amount of material granted in the two permits exceed twenty dollars in value, except in cases of great or unusual need, or in the case of school districts, churches, and noncommercial cooperative organizations, when the supervisor may, in his discretion, extend the amount to any value not exceeding one hundred dollars. Free-use permits aggregating over one hundred dollars in value may be granted only by the Forester. The duration of any permit will be fixed by the issuing officer, but all permits must terminate on or before June 30 of each year.

If the permittee fails to remove timber within the time stated in the permit, the forest officer may grant the timber to another applicant. A permit will not be renewed to an applicant who has failed to use it, until the tract has been open to application by others for thirty days. In cases of unusual emergency, however, it may be extended by the supervisor, or, if for twenty dollars or less, by a ranger authorized to grant free use.

REGULATION 24. All forest officers whom the supervisor may designate are authorized to grant free-use permits up to twenty dollars in value under these regulations, and to make such restrictions as to quality, kind, amount, location, and removal as they deem necessary to protect the national forests. It is their duty to furnish cheerful assistance to applicants, to act promptly upon all applications, and, in general, to follow as liberal a policy in the matter of free use as the interests of the national forests and the proper performance of their other work will allow.

No free-use material, except the small quantities actually needed by transients, may be taken without a permit. Free use can never be granted verbally.

REGULATION 25. Free use may be granted for consumption outside the State in which the national forest is located, except from the Black Hills National Forest in South Dakota.

REGULATION 26. All free-use material may be sawed, and all except green timber may be cut for the permittee by an agent, but the work so done must not be paid for by a share of the material. When a permittee is physically incapable of doing the work he may hire an agent to cut any green or dead timber, but he can not pay him by sharing the material.

REGULATION 27. The Forester is authorized to permit, under such conditions as he may deem necessary, the free use of earth, stone, and timber from the national forests by the Reclamation Service in the construction of works under the national irrigation law. If the amount needed is not greater than that which the supervisor is authorized to sell, the permit may be approved by the supervisor.

REGULATION 28. No timber or other forest products received under a free-use permit shall be sold until the permittee has made a regular application for the purchase of the material and has paid the purchase price.

REGULATION 29. When a right of way or other special use is granted within a national forest, the Forester or the supervisor who approves the permit may, in his discretion, without advertisement, fix the price and require payment for all timber cut or destroyed on national forest land occupied or cleared in direct connection with the enjoyment of the right of way or special use.

REGULATION 30. All forest officers whom the supervisor may designate are authorized to sell dead and green timber not exceeding fifty dollars in value. All supervisors are authorized to sell green and dead timber not exceeding one hundred dollars in value. The Forester is authorized to make timber sales for larger amounts and to delegate this authority in special cases.

REGULATION 31. The supervisor may in his discretion require that a deposit be made with the fiscal agent before examination of or report on any application to purchase timber.

REGULATION 32. No timber shall be cut under any timber-sale contract unless it has been paid for. If in any sale the timber available does not reach the amount estimated and paid for, the necessary refund will be made, provided the purchaser has complied with the terms of the sale.

REGULATION 33. In any sale the timber may be paid for in one or more payments, as agreed. In sales of one hundred dollars or less the partial payments must not exceed three.

REGULATION 34. The period allowed for the removal of timber, which in no case will exceed five years, must be fixed in the agreement, and in sales in which a period of two or more years is allowed for the removal of the timber the minimum amount to be removed each year must be specified, except in unusual cases. If at the expiration of the period named in the contract the purchaser has not removed all the timber, he forfeits all right to any timber not yet removed and to his purchase money; but if his failure to comply with the restriction was unavoidable, the Forester may, in his discretion, extend the limit to prevent hardship.

Supervisors may extend the time allowed for the cutting and removal of timber in sales of class A and class B. In any sale, unless it is otherwise specified in the contract, they may allow the postponement of brush piling when snow makes it impracticable. The supervisor may require the purchaser to give bond to comply with the terms of the application for such postponement. Extension of time in a class C sale may be granted only by the Forester or such officers as he may designate.

REGULATION 35. Timber cut from any national forest may be sold in any market anywhere; except that from the Black Hills National Forest in South Dakota dead and insect-infested timber only may be exported from that State.

REGULATION 36. In class A and class B sales bonds will be required only in exceptional cases. In class C sales in which the value of timber involved is less than three thousand dollars, bonds will not be required unless definitely recommended by the supervisor. In all sales for amounts of three thousand dollars or more bonds will be required, except in special cases. The responsibility of the sureties must be established by the supervisor and reported upon in all bonds requiring the approval of the Forester. Supervisors may approve any bonds in sales of class A and class B.

REGULATION 37. No timber cut under any contract shall be removed from the place selected for scaling, measuring, or counting until it has been scaled, measured, or counted and stamped by the forest officer.

No person, except a forest officer, shall stamp any timber belonging to the Government upon a national forest with the regulation marking ax or with any instrument having a similar design.

No live tree shall be cut under any contract until marked or otherwise designated by a forest officer.

No trees within the limits of a national forest, or upon any unpatented claim within a national forest, shall be cut, girdled, or otherwise killed or destroyed, except under permit or where otherwise allowed by law.

REGULATION 38. The willful removal of any timber which has been unlawfully cut, either previously or subsequently to the creation of the national forest, is prohibited.

REGULATION 39. In sales above five hundred dollars, allotments, at the highest price offered, may be made to several bidders to prevent monopoly.

REGULATION 40. After any timber has been advertised, the Forester and such officers as he may designate may dispose of it at private sale, without further advertisement, at prices not lower than those named in the advertisement:

(a) If the timber has been advertised, but not sold.

(b) If the purchaser fails to complete his contract.

Timber may also be disposed of at private sale if the law does not require that it be advertised.

REGULATION 41. The Forester and such officers as he may designate may permit the cutting and removal of timber in advance of the award in an advertised sale, when the applicant has made a deposit covering the value of the timber to be cut and removed, and has agreed to pay for all timber actually cut under the privilege of advance cutting at the rate of the highest price bid, or, if no bids are received, at the rate named in the advertisement.

REGULATION 42. Trails on national forest lands in Alaska may be constructed, extended, or repaired without permit. Wagon roads may be constructed, widened, extended, or repaired when needed, but permit must first be obtained from the supervisor. Permits will not give any right to the exclusive use, or to charge toll, or against future disposal of the land by the United States.

REGULATION 43. When a right of way or other special use is granted within a national forest in Alaska, the supervisor may, without charge, allow the cutting

of timber when this is necessary for the proper enjoyment of the special use. (See Reg. 29.)

REGULATION 44. Without permit, and free of charge, settlers, farmers, prospectors, fishermen, or similar persons residing within or adjacent to national forests in Alaska are granted the privilege of taking green or dry timber from the forests, and driftwood, afloat or on the beaches, for their own personal use, but not for sale: *Provided*, That the amount of material so taken shall not in any one year exceed twenty thousand feet board measure, or twenty-five cords of wood: *And provided further*, That the persons enjoying this privilege will, on demand, forward to the supervisor a statement of the quantity of material so taken and a description of the location from which it was removed.

REGULATION 45. Whenever any live-stock association whose membership includes a majority of the owners of any class of live stock using a national forest or portion thereof shall appoint a committee, an agreement on the part of which shall be binding upon the association, such committee, upon application to the Forester, may be recognized as an advisory board for the association, and shall then be entitled to receive notice of proposed action and have an opportunity to be heard by the local forest officer in reference to increase or decrease in the number of stock to be allowed for any year, the division of the range between different classes of stock or their owners, or the adoption of special rules to meet local conditions.

REGULATION 46. The Secretary of Agriculture will prescribe each year the number of stock to be allowed in each national forest. The period during which grazing will be allowed and the grazing fees to be charged will be determined by the Forester. The supervisor will issue grazing permits in accordance with the instructions of the Forester. In the allotment of grazing permits the regular occupants of the range who own and reside upon improved ranch property in or near the national forests will be given first consideration, but will be limited to a number which will not exclude regular occupants who reside or whose stock are wintered at a greater distance from the national forests.

REGULATION 47. National forests in which grazing is allowed will be divided into districts approved by the Forester, who will determine the kind of stock to be grazed in each district. The supervisor will make such range divisions among applicants for the grazing permits as appear most equitable and for the best interest of the national forest and its users. When required for the protection of camping places, lakes and streams, roads and trails, etc., or of areas which are to be reforested, the supervisor may exclude stock from specified areas for such period of time as is necessary. Stock will be excluded from areas where they will destroy young growth or will prevent reproduction.

REGULATION 48. All persons must secure permits before grazing any stock in a national forest, except for the few head in actual use by prospectors, campers, and travelers, or saddle, pack, and work animals actually used in caring for stock grazed under permit or in connection with timber sales or improvement work on the national forests, and milch or work animals not exceeding a total of ten head owned and in use by bona fide settlers residing in or near a national forest, which require no permit.

REGULATION 49. The grazing upon or driving across any national forest of any live stock without a permit, except saddle, milch, or work animals exempted from permit by the preceding regulation, is prohibited.

REGULATION 50. Permits will be granted only for the exclusive use and benefit of the owners of the stock, and will be forfeited if sold or transferred in any manner or for any consideration. Speculation in the use of grazing permits will not be allowed, and permits will be refused or canceled for intentional false statement of the number of stock owned.

REGULATION 51. The supervisor will set and give public notice of a date each year on or before which all applications for grazing permits must be presented to him. Permits may be refused to persons who do not file their applications within the required limit, unless satisfactory reasons are given.

REGULATION 52. Grazing applications must not cover more stock than the applicant desires to graze in the national forest, and must show the marks and brands of the stock, the portion of the national forest or district in which pasture is desired, and the grazing period.

REGULATION 53. Whenever there is a dispute between grazing applicants for the same area, the supervisor will notify them to appear before him at a stated time and place, to make a statement of their claims. After all evidence has been presented the supervisor will decide who shall be granted permits, and will forthwith notify each party to the dispute of his decision and his reasons there-

for, which will be final unless written notice of appeal to the Forester is given him within ten days thereafter. Appeal will avail only in case of error.

REGULATION 54. Persons owning cattle and horses which regularly graze on ranges located along the boundary line and only partially included within a national forest may be granted permits for such portion of their stock as the circumstances appear to justify, but may be required to herd or so handle their stock as to prevent trespassing by that portion for which a permit is not granted, and to sign a supplemental agreement to that effect.

REGULATION 55. A reasonable fee will be charged for grazing all classes of live stock on national forests. The prices will be as follows, depending upon the advantages and locality of the forest: From twenty (20) to fifty (50) cents per head for cattle and horses for the summer grazing season, and from thirty-five (35) to seventy-five (75) cents per head for the entire year; from ten (10) to twenty (20) cents per head for hogs for the summer grazing season, and from twenty (20) to forty (40) cents per head for the entire year; from five (5) to twelve (12) cents per head for sheep and goats for the summer grazing season, and from ten (10) to twenty (20) cents per head for the entire year. An extra charge of two (2) cents per head will be made for sheep or goats which are allowed to enter the national forests for the purpose of lambing or kidding. All stock six months old and over at the time of entering will be counted as grown stock.

REGULATION 56. All grazing fees are payable for each year strictly in advance. When an applicant for a grazing permit is notified by the supervisor that his application has been approved, he will remit the amount due for grazing fees to the fiscal agent, Forest Service, Washington, D. C., and upon return of the certificate to the supervisor a permit will be issued allowing the stock to enter the forest and remain during the period specified.

Persons who fail to pay the grazing fee thirty days before the beginning of the grazing period must notify the supervisor and give satisfactory reasons, or they may be denied a grazing permit the following season.

REGULATION 57. The fees paid on account of a grazing permit which has been duly issued will not be refunded for nonuse of the permit, except when, in the opinion of the Forester, the applicant is prevented from using the range by circumstances over which he has no control.

REGULATION 58. When an owner who has a permit is ready to drive in his stock, he must notify the nearest forest officer, by mail or otherwise, stating the number to be driven in. If called upon to do so, he must provide for having his stock counted before entering the national forest, or at any time afterwards when the number of stock appears to be greater than the number covered by permit. Whenever any stock is removed before the expiration of the permit, it can be replaced by other stock to fill out the number covered by permit if the nearest forest officer is notified of such action at once. The owners of stock which is kept under herd upon the national forests will be furnished with cards for the identification of their herders by forest officers.

REGULATION 59. Each person or group of persons granted grazing permits will be required to repair all damage to roads or trails caused by the presence of their stock in any portion of a national forest, and to build any new roads or trails found necessary for the proper handling of the stock. They will also be required to fence any spring or seep which is being damaged by tramping, and, if necessary, pipe the water into troughs for watering stock. Such troughs must be open for public use.

REGULATION 60. Sheep and goats must not be bedded more than six nights in succession in the same place, except when bedding bands of ewes during lambing season, and must not be bedded within three hundred yards of any running stream or living spring, except in rare cases where this restriction is clearly impracticable.

REGULATION 61. The carcasses of all animals which die in the close vicinity of any water must be removed immediately, and buried or burned.

REGULATION 62. Whenever the forest officers require it, all stock grazed under permit must be salted regularly at such places and in such manner as they may designate.

REGULATION 63. All persons holding grazing permits are required to extinguish camp fires started by them or their employees before leaving the vicinity thereof, and to aid in extinguishing all forest fires within the division or district of the national forest in which they are grazing stock.

REGULATION 64. Whenever an injury is being done the national forest by reason of improper handling of the stock, the owner must comply with the orders

of the forest officers or the permit will be canceled and the stock removed. The grazing of stock upon a closed area or upon range not allowed by the permit will constitute a trespass, and the owner of the stock will be held liable for damages.

REGULATION 65. Persons who own, or who have leased from the owners, land within the exterior limits of any national forest which they desire to use for grazing purposes will be allowed to cross the forest lands free of charge with their stock to reach such private holdings, but when the stock will be grazed on national forest land en route they must make application to the supervisor for a permit to cross. The application must be accompanied by a personal certificate of title showing the description and ownership of the land, and, if leased from an owner, a copy of the lease, and must state the number of stock to be taken in, the length of time required to cross the national forest land, the route over which the stock is to be driven, the period during which the stock will remain upon the private land, and how much stock the owned or leased land will pasture during the period specified.

When the private land is unfenced a special clause may be inserted in the agreement waiving the right to the exclusive use of the private land and allowing it to remain open to other stock grazed under permit, in consideration of which a permit will be issued, free of charge, allowing the stock to be grazed at large upon the national forest, but the grazing fee must be paid on all stock over the estimated grazing capacity of the private lands.

REGULATION 66. Persons wishing to drive stock across any part of a national forest must make application to the supervisor or other forest officers, either by letter or on the regular grazing application form, for a permit to graze stock en route, and must have a permit from the supervisor, or such other forest officer as he may designate, before entering the national forest. The application must state the number of stock to be driven, the date of starting, and period required for passage. Grazing must be confined to the limits and along the route designated by the forest officers, and will only be allowed for the period actually necessary for stock to cross the national forest.

Permits will not be required for driving small bands of stock along public highways, or when the stock will not be grazed upon national forest lands en route.

REGULATION 67. The construction and maintenance of drift or division fences will be allowed when they will be a benefit to the national forest or its administration and will not interfere with the use of the range by all who are equitably entitled to share in the grazing.

REGULATION 68. The construction of corrals upon national forest lands covering an area of not more than one (1) acre, to be used in connection with the proper handling of live stock which is permitted to graze thereon, will be allowed without charge wherever in the judgment of the forest officers such corrals are necessary and will not be detrimental to the proper care of the forest.

REGULATION 69. The construction of inclosures upon national forest lands containing not more than three hundred and twenty (320) acres will be allowed, when such inclosures are necessary for the proper handling of the stock allowed to graze upon the forests, under a special permit, for which an annual rental of not less than four (4) cents per acre will be charged in addition to the regular grazing fee. The fencing up of watering places for the purpose of controlling adjoining range will not be allowed, and in fencing pastures provision must be made to allow free access to water by any stock grazing under permit. The application may be made in the same manner as for other special uses.

REGULATION 70. Stock-watering tanks may be constructed upon the national forests under special-use permits, which will be issued free of charge to persons holding grazing permits when the use is noncommercial, and inclosures of not more than forty acres may be allowed in connection therewith when necessary for the protection of the range, at an annual rental of not less than two dollars.

REGULATION 71. The erection or maintenance of any fence or inclosure upon any national forest without a permit is prohibited, except upon patented land or upon a valid claim when necessary for the actual development of such claim consistent with the purposes for which it was initiated.

REGULATION 72. Wild grass upon national forests may be cut for hay under permits issued by supervisors or such other forest officers as the supervisor may designate. A charge will be made of not less than twenty (20) cents per acre. Application, either orally or in writing, should be made to the supervisor or officer authorized to issue the permits, stating the area of the tract desired and the price offered.

REGULATION 73. All stock which is grazed under permit in or allowed to cross any national forest will be required to conform to the quarantine regulations of the Bureau of Animal Industry, United States Department of Agriculture, and all live-stock laws of the State or Territory in which the national forest is located.

REGULATION 74. All forest officers will cooperate with state or territorial officials, so far as they can without undue interference with their regular forest work, to enforce local laws for the protection of game and stock. When authorized to do so by the proper state officers, they will, without additional pay, except bounties and fees offered by associations and States, act as game wardens with full power to enforce the local laws. If not so authorized, they will promptly inform the state officials of all violations discovered.

REGULATION 75. The fiscal agent, Forest Service, Washington, D. C., is authorized to receive all payments to the Forest Service. The special fiscal agent, Ketchikan, Alaska, is authorized to receive payments on account of transactions in Alaska. All other forest officers are prohibited from receiving any payments. Payments must be made by postal or express money orders or national bank drafts on New York City, drawn payable to the Treasurer of the United States, but forwarded to the fiscal agent, accompanied by printed-form letters of transmittal (Form 361), which will be furnished the payor by the forest officers. The letter of transmittal must designate the transaction on account of which the payment is made, and must be signed by the payor and the forest officer conducting the transaction. A duplicate of the form letter of transmittal, signed only by the forest officer, for all payments except grazing fees, must at the same time be sent to the Forester.

REGULATION 76. Claims for refund of payments made on the Forest Service must be addressed to the supervisor, who will forward them to the Forester with his recommendations. If the Forester approves the claim, the amount found not due the United States will be refunded by the fiscal agent upon presentation of a voucher prepared in accordance with the fiscal regulations and approved by the Forester.

REGULATION 77. The Forester and such officers as he may designate may issue such permits, demand and approve such bonds, require such stipulations, and approve and execute such leases and other contracts as are required or permitted by law or these regulations, or as the Secretary of Agriculture is required or permitted to demand, approve, require, or execute in matters affecting the Forest Service and the national forests. And the Forester and such officers as he may designate may in like manner revoke or cancel such documents for cause or at discretion as such documents may respectively provide.

REGULATION 78. The willful setting on fire, or causing to be set on fire, of any timber, brush, or grass, or leaving or suffering any fire to burn unattended near any timber or other inflammable material in a national forest is prohibited.

REGULATION 79. Camp fires must not be larger than necessary; must not be built in leaves, rotten wood, or other places where they are likely to spread, or against large or hollow logs, where it is difficult to be sure when they are completely out. In windy weather and in dangerous places camp fires must be confined to holes, or all vegetable matter must be cleared from the ground around them. A fire must never be left, even for a short absence, before it is completely extinguished.

REGULATION 80. Lumbermen, settlers, miners, prospectors, and other persons using the national forest are cautioned against making dangerous slashings, and must not fire them in very dry weather. If it is necessary to burn slashings ample notice must always be given the nearest forest officer before burning, so that he may take steps to reduce the danger. If notice is not given, or if the ranger's instructions are not followed, the person responsible for the burning will be held strictly accountable for all damage to the forest, and will be liable, in aggravated cases, to criminal prosecution.

REGULATION 80a. All forest officers will cooperate with state and territorial officials so far as they can, without undue interference with their regular forest work, to enforce local laws for the prevention and extinguishment of forest fires. When authorized to do so by the proper state officers, they will, without additional pay, act as fire wardens, with full power to enforce the local laws.

REGULATION 81. The following acts within national forests are forbidden:

(a) Willful destruction of or damage to any property belonging to or used by the United States for national forest purposes.

(b) The willful tearing down or defacing of any notice of the Forest Service.

APPENDIX L.

THE ALASKA GAME LAW AND REGULATIONS OF THE DEPARTMENT OF AGRICULTURE, 1908.

The first comprehensive law for the protection of game in Alaska was the act of June 7, 1902 (32 Stat. L., 327). Under this act regulations were promulgated by the Secretary of Agriculture to take effect October 1, 1903, imposing local restrictions for the protection of caribou and walrus, modifying the seasons for waterfowl in certain localities, and prescribing rules for the shipment of trophies, specimens for scientific purposes, and live animals and birds for exhibition or propagation. In 1904 the regulations were amended by establishing three game districts, modifying the seasons for certain kinds of game, and prohibiting the use of dogs in hunting deer, moose, or caribou.

THE NEW LAW.

The Sixtieth Congress made important amendments to the original law. Under the new law (35 Stat. L., 102), approved May 11, 1908, Alaska is divided at latitude 62° into two game districts, with special seasons for each district; caribou on the Kenai Peninsula are protected until 1912; nonresidents hunting big game other than deer or goats, and residents desiring to export heads or hides of big game from Alaska are required to obtain licenses; authorization is also given for the employment of wardens and registration of guides. All matters relating to the issue of licenses, employment of wardens, and the registration of guides are placed in charge of the governor of Alaska. Hereafter all correspondence on these subjects or concerning the shipment of heads or trophies should be addressed to the governor of Alaska, Juneau, Alaska. The Department of Agriculture will continue as heretofore to issue permits for the collection and shipment of specimens for scientific purposes and for live animals and birds for exhibition or propagation. Correspondence relating to these matters should be addressed to the Secretary of Agriculture, Washington, D. C.

The law as now amended reads as follows:

TEXT OF THE ACT.

[35 Stat. L., 102.]

AN ACT To amend an act entitled "An act for the protection of game in Alaska, and for other purposes," approved June seventh, nineteen hundred and two.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That an act entitled "An act for the protection of game in Alaska, and for other purposes," approved June seventh, nineteen hundred and two, be amended to read as follows:

"From and after the passage of this act the wanton destruction of wild game animals or wild birds, except eagles, ravens, and cormorants, the destruction of nests and eggs of such birds, or the killing of any wild birds, other than game birds, except eagles, for the purposes of selling the same or the skins or any part thereof, except as hereinafter provided, is hereby prohibited.

"*Game defined.*—The term 'game animals' shall include deer, moose, caribou, mountain sheep, mountain goats, brown bear, sea lions, and walrus. The term 'game birds' shall include waterfowl, commonly known as ducks, geese, brant, and swans; shore birds, commonly known as plover, snipe, and curlew, and the several species of grouse and ptarmigan.

"*Exemptions.*—Nothing in this act shall affect any law now in force in Alaska relating to the fur seal, sea otter, or any fur-bearing animal or prevent the killing of any game animal or bird for food or clothing at any time by natives, or by miners or explorers, when in need of food; but the game animals or birds so killed during close season shall not be shipped or sold.

"*Sec. 2. Season.*—That it shall be unlawful for any person in Alaska to kill any wild game animals or birds, except during the season hereinafter provided: North of latitude sixty-two degrees, brown bear may be killed at any time; moose, caribou, sheep, walrus, and sea lions from August first to December tenth, both inclusive; south of latitude sixty-two degrees, moose, caribou, and mountain sheep from August twentieth to December thirty-first, both inclusive; brown bear from October first to July first, both inclusive; deer and mountain

goats from April first to February first, both inclusive; grouse, ptarmigan, shore birds, and waterfowl from September first to March first, both inclusive: *Provided*, That no caribou shall be killed on the Kenai Peninsula before August twentieth, nineteen hundred and twelve: *And provided further*, That the Secretary of Agriculture is hereby authorized, whenever he shall deem it necessary for the preservation of game animals or birds, to make and publish rules and regulations prohibiting the sale of any game in any locality modifying the close seasons hereinbefore established, providing different close seasons for different parts of Alaska, placing further restrictions and limitations on the killing of such animals or birds in any given locality, or prohibiting killing entirely for a period not exceeding two years in such locality.

"**Sec. 3. Number.**—That it shall be unlawful for any person to kill any female or yearling moose or for any one person to kill in any one year more than the number specified of each of the following animals: Two moose, one walrus or sea lion, three caribou, three mountain sheep, three brown bear, or to kill or have in his possession in any one day more than twenty-five grouse or ptarmigan or twenty-five shore birds or waterfowl.

"**Guns and boats.**—That it shall be unlawful for any person at any time to hunt with dogs any of the game animals specified in this act; to use a shotgun larger than number ten gauge, or any gun other than that which can be fired from the shoulder; or to use steam launches or any boats other than those propelled by oars or paddles in the pursuit of game animals or birds.

"**Sec. 4. Sale.**—That it shall be unlawful for any person or persons at any time to sell or offer for sale any hides, skins, or heads of any game animals or game birds in Alaska, or to sell, offer for sale, or purchase, or offer to purchase, any game animals or game birds, or parts thereof, during the time when the killing of such animals or birds is prohibited: *Provided*, That it shall be lawful for dealers having in possession game animals or game birds legally killed during the open season to dispose of the same within fifteen days after the close of said season.

"**Sec. 5. Licenses.**—That it shall be unlawful for any nonresident of Alaska to hunt any of the game animals protected by this act, except deer and goats, without first obtaining a hunting license, or to hunt on the Kenai Peninsula without a registered guide, and such license shall not be transferable and shall be valid only during the calendar year in which issued. Each applicant shall pay a fee of one hundred dollars for such license, unless he be a citizen of the United States, in which case he shall pay a fee of fifty dollars. Each license shall be accompanied by coupons authorizing the shipment of two moose if killed north of latitude sixty-two degrees, four deer, three caribou, three mountain sheep, three goats, and three brown bear, or any part of said animals, but no more of any one kind.

"A resident of Alaska desiring to export heads or trophies of any of the game animals mentioned in this act shall first obtain a shipping license, for which he shall pay a fee of forty dollars, permitting the shipment of heads or trophies of one moose, if killed north of latitude sixty-two degrees, four deer, two caribou, two sheep, two goats, and two brown bear, but no more of any one kind; or a shipping license, for which he shall pay a fee of ten dollars, permitting the shipment of a single head or trophy of caribou or sheep; or a shipping license, for which he shall pay a fee of five dollars, permitting the shipment of a single head or trophy of any goat, deer, or brown bear. Any person wishing to ship moose killed south of latitude sixty-two degrees must first obtain a special shipping license, for which he shall pay a fee of one hundred and fifty dollars, permitting the shipment of one moose, or any part thereof. Not more than one general license and two special moose licenses shall be issued to any one person in one year: *Provided*, That before any trophy shall be shipped from Alaska under the provisions of this act the person desiring to make such shipment shall first make and file with the customs office at the port where such shipment is to be made an affidavit to the effect that he has not violated any of the provisions of this act; that the trophy which he desires to ship has not been bought or purchased and has not been sold and is not being shipped for the purpose of being sold, and that he is the owner of the trophy which he desires to ship, and if the trophy is that of moose, whether the animal from which it was taken was killed north or south of latitude sixty-two degrees: *Provided further*, That any resident of Alaska prior to September first, nineteen hundred and eight, may without permit or license ship any head or trophy of any of the game animals herein mentioned upon filing an affidavit with the customs office at the port

where such shipment is to be made that the animal from which said head or trophy was taken was killed prior to the passage of this act. Any affidavit required by the provisions of this act may be subscribed and sworn to before any customs officer or before any officer competent to administer an oath.

"The governor of Alaska is hereby authorized to issue licenses for hunting and shipping big game. On issuing a license he shall require the applicant to state whether the heads or trophies to be obtained or shipped under said license will pass through the ports of entry at Seattle, Washington, Portland, Oregon, or San Francisco, California, and he shall forthwith notify the collector of customs at the proper port of entry as to the name of the holder of the license and the name and address of the consignee. All proceeds from licenses, except one dollar from each fee, which shall be retained by the clerk issuing the license to cover the cost of printing and issue, shall be paid into the Treasury of the United States as miscellaneous receipts; the amount necessary for the enforcement of this act shall be estimated for annually by the Agricultural Department and appropriated for including the employment and salaries to be paid to game wardens herein authorized. And the governor shall annually make a detailed and itemized report to the Secretary of Agriculture, in which he shall state the number and kind of licenses issued, the money received, which report shall also include a full statement of all trophies exported and all animals and birds exported for any purpose.

"And the governor of Alaska is further authorized to employ game wardens, to make regulations for the registration and employment of guides, and fix the rates for licensing guides and rates of compensation for guiding. Every person applying for a guide license shall, at the time of making such application, make and file with the person issuing such license an affidavit to the effect that he will obey all the conditions of this act and of the regulations thereunder, that he will not violate any of the game laws or regulations of Alaska, and that he will report all violations of such laws and regulations that come to his knowledge. Any American citizen or native of Alaska of good character, upon compliance with the requirements of this act, shall be entitled to a guide license. Any guide who shall fail or refuse to report any violation of this act, or who shall himself violate any of the provisions of this act, shall have his license revoked, and in addition shall be liable to the penalty provided in section seven of this act, and shall be ineligible to act as guide for a period of five years from the date of conviction.

"SEC. 6. That it shall be unlawful for any persons, firm, or corporation, or their officers or agents, to deliver to any common carrier, or for the owner, agent, or master of any vessel, or for any other person, to receive for shipment or have in possession with intent to ship out of Alaska, any wild birds, except eagles, or parts thereof, or any heads, hides, or carcasses of brown bear, caribou, deer, moose, mountain sheep, or mountain goats, or parts thereof, unless said heads, hides, or carcasses are accompanied by the required license or coupon and by a copy of the affidavit required by section five of this act: *Provided*, That nothing in this act shall be construed to prevent the collection of specimens for scientific purposes, the capture or shipment of live animals and birds for exhibition or propagation, or the export from Alaska of specimens under permit from the Secretary of Agriculture, and under such restrictions and limitations as he may prescribe and publish.

"It shall be the duty of the collector of customs at Seattle, Portland, and San Francisco to keep strict account of all consignments of game animals received from Alaska, and no consignment of game shall be entered until due notice thereof has been received from the governor of Alaska or the Secretary of Agriculture, and found to agree with the name and address on the shipment. In case consignments arrive without licenses they shall be detained for sixty days, and if a license be not then produced said consignments shall be forfeited to the United States and shall be delivered by the collector of customs to the United States marshal of the district for such disposition as the court may direct.

"SEC. 7. *Penalties.*—That any person violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall forfeit to the United States all game or birds in his possession, and all guns, traps, nets, or boats used in killing or capturing said game or birds, and shall be punished for each offense by a fine of not more than two hundred dollars or imprisonment not more than three months, or by both such fine and imprisonment, in the discretion of the court. Any person making any false or untrue statements in any affidavit required by this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall forfeit to the United States all

trophies in his possession, and shall be punished by a fine in any sum not more than two hundred dollars or imprisonment not more than three months, or by both such fine and imprisonment, in the discretion of the court.

"Enforcement.—It is hereby made the duty of all marshals and deputy marshals, collectors or deputy collectors of customs, all officers of revenue cutters, and all game wardens to assist in the enforcement of this act. Any marshal, deputy marshal, or warden in or out of Alaska may arrest without warrant any person found violating any of the provisions of this act or any of the regulations herein provided, and may seize any game, birds, or hides, and any traps, nets, guns, boats, or other paraphernalia used in the capture of such game or birds and found in the possession of said person in or out of Alaska, and any collector or deputy collector of customs, or warden, or licensed guide, or any person authorized in writing by a marshal shall have the power above provided to arrest persons found violating this act or said regulations, and seize said property without warrant to keep and deliver the same to a marshal or a deputy marshal. It shall be the duty of the Secretary of the Treasury, upon request of the governor or Secretary of Agriculture, to aid in carrying out the provisions of this act.

"Sec. 8. That all acts or parts of acts in conflict with the provisions of this act are hereby repealed."

Approved, May 11, 1908.

REGULATIONS APPROVED AUGUST 1, 1908.

In accordance with the proviso in section 6 of the foregoing act, authorizing the Secretary of Agriculture to prescribe restrictions and limitations governing the collection and shipment of specimens for scientific purposes, and of live animals and birds for exhibition or propagation, the following regulations are hereby prescribed, to take effect October 1, 1908:

1. Permits.—Hereafter the Department of Agriculture will not issue permits for the shipment of trophies, including heads or hides of game animals, since the new law requires that such trophies be shipped under regular hunting or shipping licenses issued by the governor of Alaska. Persons desiring to collect specimens of mammals, birds, nests, or eggs in Alaska for scientific purposes must satisfy the department that the specimens are intended for such purposes before permits will be issued, and must forward with the permit, to the collector of customs at Seattle, Portland, or San Francisco, a list showing the number of each kind of game collected under said permit before the specimens will be released from the custom-house. If several shipments are made under one permit the permit should accompany the first consignment and a list of the game contained in each shipment mailed to the collector of customs at the time of such shipment. Permits will be issued only to regular representatives of public museums, or, under exceptional circumstances, to persons who are known to be making special investigations.

Persons desiring to ship live animals or birds should obtain permits sufficiently in advance of shipment to avoid any delay when the consignments reach the custom-house.

Applicants should be careful to state in each case the region where specimens are to be collected and the probable port and date of shipment. All permits will expire on December 31 of the year of issue, but consignments actually shipped before such expiration may be admitted upon arrival at Seattle, Portland, or San Francisco.

2. Specimens for scientific purposes.—Packages containing specimens for scientific purposes offered for shipment must be marked "Specimens for scientific purposes," or words to like effect, and must bear the shipper's name and address. Inattention to these details will render packages subject to examination and detention by officers of the customs. Packages of specimens addressed to the U. S. Department of Agriculture, the Smithsonian Institution, or the U. S. National Museum, if properly marked, may be shipped without permit and without examination. Packages addressed to individuals, whether officers of executive departments or not, must be accompanied by permit.

3. Live animals and birds.—Live animals or birds for exhibition or propagation may be captured in close season under permit only, and shipments must be accompanied by permits except as stated in Regulation 4. Consignments offered for shipment without permit will not be refused transportation, but may be forwarded to Seattle, Portland, or San Francisco and held there at owner's risk and expense until permits are obtained.

4. *Parks excepted.*—Live animals (not exceeding 10 in one consignment) and live birds (not exceeding 25 in one consignment) may be shipped without permit to the following public zoological parks, if shipped directly to said parks and not to some agent:

Golden Gate Park, San Francisco.

Lincoln Park, Chicago.

Menagerie of Central Park, New York.

National Zoological Park, Washington.

New York Zoological Society, New York City.

Zoological Society, Philadelphia.

Consignments for these parks which exceed the above-mentioned limits must be accompanied by regular permits in all cases.

5. *Reserved rights of department.*—The department expressly reserves the right to examine at Seattle, Portland, or San Francisco any or all specimens, live game animals, or game birds from Alaska, whether shipped as personal baggage or otherwise; to detain, if necessary, at said ports any consignment of game animals or birds or any part thereof not forwarded in conformity with these regulations, and to require the return of the same either to original port of shipment or their delivery to the United States marshal for disposition in accordance with the provisions of sections 6 and 7 of the act. Owners and masters of vessels will accept all consignments subject to these conditions. In case of return, all expenses of reshipment will be paid by the vessel transporting the goods from Alaska; and the master of said vessel must file at Seattle, Portland, or San Francisco a customs receipt for all goods returned to Alaska.

6. *Examination of shipments.*—Specimens of live animals and birds arriving at Seattle or San Francisco, not covered by permits or shipped contrary to these regulations, will be held for examination by officers of the customs, promptly reported, and released only upon instructions from the Treasury Department. *Provided*, That all goods not released within sixty (60) days after arrival shall be returned to the port of shipment (at the expense of the vessel bringing the same) for disposition in accordance with the provisions of sections 6 and 7 of the act.

All previous regulations and all special rulings of the department in conflict with these regulations are hereby revoked.

REGULATIONS FOR THE PROTECTION OF DEER IN ALASKA, APPROVED MARCH 6, 1909.

In accordance with authority conferred on the Secretary of Agriculture under section 2 of the Alaska game law (35 Stat., 102), approved May 11, 1908, the following resolutions, additional to those of August 1, 1908, are hereby promulgated, to take effect April 1, 1909:

(1) In southeastern Alaska the season for killing deer shall be limited to the period from June 1 to December 15; (2) the sale of deer carcasses or venison is prohibited except during the months of September, October, November, and December; and (3) the number of deer killed by one person during the open season shall be limited to 12.

REGULATIONS APPROVED JULY 21, 1910, FOR THE PROTECTION OF GAME IN ALASKA.

In accordance with the authority conferred on the Secretary of Agriculture under section 2 of the Alaska game law (35 Stat., 102), approved May 11, 1908:

"That the Secretary of Agriculture is hereby authorized, whenever he shall deem it necessary for the preservation of game animals or birds, to make and publish rules and regulations prohibiting the sale of any game in any locality modifying the close seasons hereinbefore established, providing different close seasons for different parts of Alaska, placing further restrictions and limitations on the killing of such animals or birds in any given locality, or prohibiting killing entirely for a period not exceeding two years in such locality."

The following regulations, additional to those of August 1, 1908, and superseding those of March 6, 1909, are hereby promulgated to take effect August 15, 1910:

REGULATION 1.

Open seasons for deer.—The season for killing deer in 1910 in southeastern Alaska shall end November 1, and thereafter the open season shall be limited to the period from August 15 to November 1, both inclusive.

REGULATION 2.

Limits.—The number of deer killed by one person during the open season shall be limited to 8.

REGULATION 3.

Sale.—After the close of the season of 1910 the sale of deer carcasses in south-eastern Alaska shall be suspended until 1912.

REGULATION 4.

Walrus.—The season for killing walrus in Bering Strait and in Bering Sea north of the mouth of the Kuskokwim River shall be limited to the period from May 10 to July 1, both inclusive. The killing of walrus in Bristol Bay and at points on the coast of Bering Sea south of the Kuskokwim River is hereby prohibited until 1912.

The regulations of March 6, 1900, relating to deer, are hereby revoked.

APPENDIX M.

LAWS AND REGULATIONS FOR PROTECTION OF FISHERIES OF ALASKA.

DEPARTMENT OF COMMERCE AND LABOR,
OFFICE OF THE SECRETARY,
Washington, April 24, 1909.

To whom it may concern:

Attention is directed to the following acts for the protection and regulation of the fisheries of Alaska, approved June 14, 1906, and June 28, 1906. To effectually carry out the provisions of these acts the regulations appended hereto are hereby promulgated, superseding and revoking the regulations promulgated in Department Circular No. 42, dated May 10, 1904. Persons engaged in the Alaska fisheries and officers of the department charged with the supervision of the fisheries of Alaska should familiarize themselves with their provisions.

AN ACT FOR THE PROTECTION AND REGULATION OF THE FISHERIES OF ALASKA.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That every person, company, or corporation carrying on the business of canning, curing, or preserving fish or manufacturing fish products within the territory known as Alaska, ceded to the United States by Russia by the treaty of March thirtieth, eighteen hundred and sixty-seven, or in any of the waters of Alaska over which the United States has jurisdiction, shall, in lieu of all other license fees and taxes therefor and thereon, pay license taxes on their said business and output as follows: Canned salmon, four cents per case; pickled salmon, ten cents per barrel; salt salmon in bulk, five cents per one hundred pounds; fish oil, ten cents per barrel; fertilizer, twenty cents per ton. The payment and collection of such license taxes shall be under and in accordance with the provisions of the act of March third, eighteen hundred and ninety-nine, entitled "An act to define and punish crimes in the district of Alaska, and to provide a code of criminal procedure for the district," and amendments thereto.

SEC. 2. That the catch and pack of salmon made in Alaska by the owners of private salmon hatcheries operated in Alaska shall be exempt from all license fees and taxation of every nature at the rate of ten cents of canned salmon to every one thousand red or king salmon fry liberated, upon the following conditions:

That the Secretary of Commerce and Labor may from time to time, and on the application of the hatchery owner shall, within a reasonable time thereafter, cause such private hatcheries to be inspected for the purpose of determining the character of their operations, efficiency, and productiveness, and if he approve the same shall cause notice of such approval to be filed in the office of the clerk or deputy clerk of the United States district court of the division of the district of Alaska wherein any such hatchery is located, and shall also notify

the owners of such hatchery of the action taken by him. The owner, agent, officer, or superintendent of any hatchery the effectiveness and productiveness of which has been approved as above provided shall, between the thirtieth day of June and the thirty-first day of December of each year, make proof of the number of salmon fry liberated during the twelve months immediately preceding the thirtieth day of June, by a written statement under oath. Such proof shall be filed in the office of the clerk or deputy clerk of the United States district court of the division of the district of Alaska wherein such hatchery is located, and when so filed shall entitle the respective hatchery owners to the exemption as herein provided; and a false oath as to the number of salmon fry liberated shall be deemed perjury and subject the offender to all the pains and penalties thereof. Duplicates of such statements shall also be filed with the Secretary of Commerce and Labor. It shall be the duty of such clerk or deputy clerk in whose office the approval and proof heretofore provided for are filed to forthwith issue to the hatchery owner, causing such proofs to be filed, certificates which shall not be transferable and of such denominations as said owner may request (no certificate to cover fewer than one thousand fry), covering in the aggregate the number of fry so proved to have been liberated; and such certificates may be used at any time by the person, company, corporation, or association to whom issued for the payment pro tanto of any license fees or taxes upon or against or on account of any catch or pack of salmon made by them in Alaska; and it shall be the duty of all public officials charged with the duty of collecting or receiving such license fees or taxes to accept such certificates in lieu of money in payment of all license fees or taxes upon or against the pack of canned salmon at the ratio of one thousand fry for each ten cases of salmon. No hatchery owner shall obtain the rebates from the output of any hatchery to which he might otherwise be entitled under this act unless the efficiency of said hatchery has first been approved by the Secretary of Commerce and Labor in the manner herein provided for.

SEC. 3. That it shall be unlawful to erect or maintain any dam, barricade, fence, trap, fish wheel, or other fixed or stationary obstruction, except for purposes of fish culture, in any of the waters of Alaska at any point where the distance from shore to shore is less than five hundred feet, or within five hundred yards of the mouth of any red-salmon stream where the same is less than five hundred feet in width, with the purpose or result of capturing salmon or preventing or impeding their ascent to their spawning grounds, and the Secretary of Commerce and Labor is hereby authorized and directed to have any and all such unlawful obstructions removed or destroyed.

SEC. 4. That it shall be unlawful to lay or set any drift net, seine, set net, pound net, trap, or any other fishing appliance for any purpose except for purposes of fish culture, across or above the tide waters of any creek, stream, river, estuary, or lagoon, for a distance greater than one-third the width of such creek, stream, river, estuary, or lagoon, or within one hundred yards outside of the mouth of any red-salmon stream where the same is less than five hundred feet in width. It shall be unlawful to lay or set any seine or net of any kind within one hundred yards of any other seine, net, or other fishing appliance which is being or which has been laid or set in any of the waters of Alaska, or to drive or construct any trap or any other fixed fishing appliance within six hundred yards laterally or within one hundred yards endwise of any other trap or fixed fishing appliance.

SEC. 5. That it shall be unlawful to fish for, take, or kill any salmon of any species in any manner or by any means except by rod, spear, or gaff, in any of the waters of Alaska over which the United States has jurisdiction, except Cook Inlet, the Delta of Copper River, Bering Sea, and the waters tributary thereto, from six o'clock postmeridian of Saturday of each week until six o'clock antemeridian of the Monday following, or to fish for, or catch, or kill in any manner or by any appliances except by rod, spear, or gaff, any salmon in any stream of less than one hundred yards in width in Alaska between the hours of six o'clock in the evening and six o'clock in the morning of the following day of each and every day of the week. Throughout the weekly close season herein prescribed the gate, mouth, or tunnel of all stationary and floating traps shall be closed, and twenty-five feet of the webbing or net of the "heart" of such traps on each side next to the "pot" shall be lifted or lowered in such manner as to permit the free passage of salmon and other fishes.

SEC. 6. That the Secretary of Commerce and Labor may, in his discretion, set aside any streams or lakes as preserves for spawning grounds, in which fishing may be limited or entirely prohibited; and when, in his judgment, the results of

fishing operations in any stream, or off the mouth thereof, indicate that the number of salmon taken is larger than the natural production of salmon in such stream, he is authorized to establish close seasons or to limit or prohibit fishing entirely for one year or more within such stream or within five hundred yards of the mouth thereof, so as to permit salmon to increase: *Provided, however*, That such power shall be exercised only after all persons interested shall be given a hearing, of which due notice must be given by publication; and where the interested parties are known to the department they shall be personally notified by a notice mailed not less than thirty days previous to such hearing. No order made under this section shall be effective before the next calendar year after same is made: *And provided further*, That such limitations and prohibitions shall not apply to those engaged in catching salmon who keep such streams fully stocked with salmon by artificial propagation.

Sec. 7. That it shall be unlawful to can or salt for sale for food any salmon more than forty-eight hours after it has been killed.

Sec. 8. That it shall be unlawful for any person, company, or corporation wantonly to waste or destroy salmon or other food fishes taken or caught in any of the waters of Alaska.

Sec. 9. That it shall be unlawful for any person, company, or corporation canning, salting, or curing fish of any species in Alaska to use any label, brand, or trade-mark which shall tend to misrepresent the contents of any package of fish offered for sale: *Provided*, That the use of the terms "red," "medium red," "pink," "chum," and so forth, as applied to the various species of Pacific salmon under present trade usages shall not be deemed in conflict with the provisions of this act when used to designate salmon of those known species.

Sec. 10. That every person, company, or corporation engaged in catching, curing, or in any manner utilizing fishery products, or in operating fish hatcheries in Alaska, shall make detailed annual reports thereof to the Secretary of Commerce and Labor, on blanks furnished by him, covering all such facts as may be required with respect thereto for the information of the department. Such reports shall be sworn to by the superintendent, manager, or other person having knowledge of the facts, a separate blank form being used for each establishment in cases where more than one cannery, saltery, or other establishment is conducted by a person, company, or corporation, and the same shall be forwarded to the department at the close of the fishing season and not later than December fifteenth of each year.

Sec. 11. That the catching or killing, except with rod, spear, or gaff, of any fish of any kind or species whatsoever in any of the waters of Alaska over which the United States has jurisdiction shall be subject to the provisions of this act, and the Secretary of Commerce and Labor is hereby authorized to make and establish such rules and regulations not inconsistent with law as may be necessary to carry into effect the provisions of this act.

Sec. 12. That to enforce the provisions of this act and such regulations as he may establish in pursuance thereof, the Secretary of Commerce and Labor is authorized and directed to depute, in addition to the agent and assistant agent of salmon fisheries now provided by law, from the officers and employees of the Department of Commerce and Labor, a force adequate to the performance of all work required for the proper investigation, inspection, and regulation of the Alaskan fisheries and hatcheries, and he shall annually submit to Congress estimates to cover the cost of the establishment and maintenance of fish hatcheries in Alaska, the salaries and actual traveling expenses of such officials, and for such other expenditures as may be necessary to carry out the provisions of this act.

Sec. 13. That any person, company, corporation, or association violating any provision of this act or any regulation established in pursuance thereof shall, upon conviction thereof, be punished by a fine not exceeding one thousand dollars or imprisonment at hard labor for a term of not more than ninety days, or by both such fine and imprisonment, at the discretion of the court; and in case of the violation of any of the provisions of section four of this act and conviction thereof a further fine of not more than two hundred and fifty dollars per diem may, at the discretion of the court, be imposed for each day such obstruction is maintained. And every vessel or other apparatus or equipment used or employed in violation of any provision of this act, or of any regulation made thereunder, may be seized by order of the Secretary of Commerce and Labor, and shall be held subject to the payment of such fine or fines as may be imposed.

Sec. 14. That the violation of any provision of this act may be prosecuted in any district court of Alaska or any district court of the United States in the States of California, Oregon, or Washington. And it shall be the duty of the Secretary of Commerce and Labor to enforce the provisions of this act and the rules and regulations made thereunder. And it shall be the duty of the district attorney to whom any violation is reported by any agent or representative of the Department of Commerce and Labor to institute proceedings necessary to carry out the provisions of this act.

Sec. 15. That all acts or parts of acts inconsistent with the provisions of this act are, so far as inconsistent, hereby repealed.

Sec. 16. That this act shall take effect and be in force from and after its passage.

Approved, June 26, 1906.

AN ACT TO PROHIBIT ALIENS FROM FISHING IN THE WATERS OF ALASKA.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any person not a citizen of the United States, or who has declared his intention to become a citizen of the United States, and is not a bona fide resident therein, or for any company, corporation, or association not organized or authorized to transact business under the laws of the United States or under the laws of any State, Territory, or district thereof, or for any person not a native of Alaska, to catch or kill, or attempt to catch or kill, except with rod, spear, or gaff, any fish of any kind or species whatsoever in any of the waters of Alaska under the jurisdiction of the United States: *Provided, however,* That nothing contained in this act shall prevent those lawfully taking fish in the said waters from selling the same, fresh or cured, in Alaska or in Alaskan waters, to any alien person, company, or vessel then being lawfully in said waters: *And provided further,* That nothing contained in this act shall prevent any person, firm, corporation, or association lawfully entitled to fish in the waters of Alaska from employing as laborers any aliens who can now be lawfully employed under the existing laws of the United States, either at stated wages or by piecework, or both, in connection with Alaskan fisheries, or with the canning, salting, or otherwise preserving of fish.

Sec. 2. That every person, company, corporation, or association found guilty of a violation of any provision of this act or of any regulation made thereunder shall, for each offense, be fined not less than one hundred dollars nor more than five hundred dollars, which fine shall be a lien against any vessel or other property of the offending party or which was used in the commission of such unlawful act. Every vessel used or employed in violation of any provision of this act or of any regulation made thereunder shall be liable to a fine of not less than one hundred dollars nor more than five hundred dollars, and may be seized and proceeded against by way of libel in any court having jurisdiction of the offense.

Sec. 3. That the violation of any provision of this act or of any regulation made thereunder may be prosecuted in any United States district court of Alaska, California, Oregon, or Washington.

Sec. 4. That the collector of customs of the district of Alaska is hereby authorized to search and seize every foreign vessel and arrest every person violating any provision of this act or any regulation made thereunder, and the Secretary of Commerce and Labor shall have power to authorize officers of the Navy and of the Revenue-Cutter Service and agents of the Department of Commerce and Labor to likewise make such searches, seizures, and arrests. If any foreign vessel shall be found within the waters to which this act applies, having on board fresh or cured fish and apparatus or implements suitable for killing or taking fish, it shall be presumed that the vessel and apparatus were used in violation of this act until it is otherwise sufficiently proved. And every vessel, its tackle, apparatus, or implements so seized shall be given into the custody of the United States marshal of either of the districts mentioned in section three of this act, and shall be held by him subject to the proceedings provided for in section two of this act. The facts in connection with such seizure shall be at once reported to the United States district attorney for the district to which the vessel so seized shall be taken, whose duty it shall be to institute the proper proceedings.

SEC. 5. That the Secretary of Commerce and Labor shall have power to make rules and regulations not inconsistent with law to carry into effect the provisions of this act. And it shall be the duty of the Secretary of Commerce and Labor to enforce the provisions of this act and the rules and regulations made thereunder, and for that purpose he may employ, through the Secretary of the Treasury and the Secretary of the Navy, the vessels of the United States Revenue-Cutter Service and of the Navy: *Provided, however,* That nothing contained in this act shall be construed as affecting any existing treaty or convention between the United States and any foreign power.

Approved, June 14, 1906.

REGULATIONS.

1. During the inspection of the salmon fisheries by the agents and representatives of this department they shall have at all times free and unobstructed access to all canneries, salteries, and other fishing establishments, and to all hatcheries.

2. All persons, companies, or corporations owning, operating, or using any trap net, pound net, or fish wheel for taking salmon or other fishes shall cause to be placed in a conspicuous place on said trap net, pound net, or fish wheel the name of the person, company, or corporation owning, operating, or using same, together with a distinctive number, letter, or name which shall identify each particular trap net, pound net, or fish wheel, said lettering and numbering to consist of black figures, not less than six inches in length, painted on white ground.

3. All persons, companies, or corporations engaged in canning salmon shall forward to the Bureau of Fisheries, Department of Commerce and Labor, Washington, D. C., three copies of each and every different can label which it is designed to place upon the canned product.

ORMSBY MOHARG, *Acting Secretary.*

APPENDIX N.

REGULATIONS FOR THE PROTECTION OF FUR-BEARING ANIMALS IN ALASKA.

DEPARTMENT OF COMMERCE AND LABOR,
OFFICE OF THE SECRETARY,
Washington, June 2, 1910.

To whom it may concern:

Section 4 of "An act to protect the seal fisheries of Alaska, and for other purposes," approved April 21, 1910, provides that—

"No person shall kill any otter, mink, marten, sable, or fur seal, or other fur-bearing animal within the limits of Alaska Territory or in the waters thereof; and every person guilty thereof shall, for each offense, be fined not less than two hundred nor more than one thousand dollars or imprisoned not more than six months, or both; and all vessels, their tackle, apparel, furniture, and cargo, found engaged in violation of this section shall be forfeited; but the Secretary of Commerce and Labor shall have power to authorize the killing of any such mink, marten, sable, fur seal, or other fur-bearing animal under such regulations as he may prescribe; and it shall be the duty of the Secretary of Commerce and Labor to prevent the killing of any fur seal except as authorized by law and to provide for the execution of the provisions of this section until it is otherwise provided by law."

Fur-bearing animals enumerated below may be hunted and killed in the Territory of Alaska, except during the seasons specified with respect to each of the several animals mentioned.

1. *Sea otter.*—The hunting or killing of sea otter is prohibited until November 1, 1920.

2. *Beaver.*—The hunting or killing of beaver is prohibited prior to November 1, 1915.

3. *Land otter, mink, muskrat, marten, fisher, and ermine.*—The hunting or killing of land otter, mink, muskrat, marten, fisher, or ermine is prohibited throughout the season from April 1 to October 31, both days inclusive, of each year.

4. *Black bear*.—The hunting or killing of black bear is prohibited throughout the season from April 1 to July 31, both days inclusive, of each year.

5. *Fox, wildcat, and lynx*.—The hunting or killing of fox, wildcat, or lynx is prohibited throughout the season from April 1 to September 30, both days inclusive, of each year.

6. The killing of any fur-bearing animal by means of strychnine or any other poison is prohibited at all times.

7. Permits or licenses may be issued by the Secretary of Commerce and Labor for the taking of fur-bearing animals for scientific purposes or for shipment to zoological parks.

The penalties and forfeitures imposed by the act will be strictly enforced against all persons who take, capture, or kill, or attempt to take, capture, or kill, any fur-bearing animal in the Territory of Alaska during the prohibited seasons herein established, or who barter or have in their possession the skin or pelt of any fur-bearing animal during the said seasons.

CHARLES NAGEL,
Secretary.

APPENDIX O.

GOVERNMENT PUBLICATIONS ON ALASKA.

This statement has been prepared in order to give information to correspondents regarding government work in and publications on Alaska. There have been included lists of the principal publications of the Interior Department and brief notes regarding the publications of other departments. Publications on early explorations and on topics not referred to may often be obtained by purchase from the Superintendent of Documents, Government Printing Office, Washington, D. C.

Correspondence should in all cases be addressed to the office or officer mentioned in this circular.

PUBLIC LANDS.

Circulars regarding the manner of obtaining title to public lands may be obtained from the Commissioner of the General Land Office, Washington, D. C., to whom all correspondence relating to public lands should be addressed.

FISHES.

Publications on the fish industry may be obtained from the Bureau of Fisheries, Washington, D. C., which will forward a list of publications free of charge.

AGRICULTURE AND STOCK RAISING.

Publications on agricultural experiments and development and on stock raising are issued by the Department of Agriculture, and information concerning may be obtained by addressing the Secretary of Agriculture, Washington, D. C.

NAVIGATION.

Charts of the navigable waters, Coast Pilots, and Tide Tables may be purchased from the Coast and Geodetic Survey, Washington, D. C. (catalogue free); papers on astronomical and magnetic work, coast pilot notes, etc., are published by the Coast and Geodetic Survey, Washington, D. C., and are furnished gratis on application. A list of such publications will be forwarded free of charge.

ROADS AND TRAILS.

Roads and trails are being constructed by the Alaska Road Commission, which is under the supervision of the Secretary of War. Information regarding the progress of this work is contained in the reports of the Secretary of War, which may be consulted at the principal libraries.

NATIVE ARTS AND LANGUAGES.

Studies of arts and languages have been made from time to time by the National Museum and the Bureau of American Ethnology, Washington, D. C., to which communications on these subjects should be addressed.

POST-ROUTE MAP.

A map 33½ by 48½ inches on a scale of 40 miles to the inch, showing the post-offices and mail routes in Alaska, may be obtained from the Post-Office Department, Washington, D. C., for 80 cents. Remittance should be by money order payable to the disbursing clerk, Post-Office Department, Washington, D. C. Postage stamps can not be accepted.

EDUCATION AND REINDEER SERVICE.

The schools for the education of natives and the reindeer industry are under the supervision of the Commissioner of Education, to whom communications relating to these subjects should be addressed.

The schools for the education of white children are under the direction of the governor of Alaska.

The following reports on schools for natives and on the reindeer service have been issued by the Bureau of Education. An asterisk (*) indicates that the Bureau of Education's stock of the paper is exhausted. These papers can generally be consulted at the principal libraries throughout the country. If a price is given, these publications may be purchased for that amount from the Superintendent of Documents, Government Printing Office. In the case of the reports on native schools the price is for the complete volume, as the Superintendent of Documents has no separates for sale.

NATIVE SCHOOLS.

- 1886. Report on education in Alaska, by Sheldon Jackson, 89 pp.
- 1889. In Annual Report for 1889, vol. 2, pp. 753-764. Cloth, 75 cents.
- 1890. In Annual Report for 1890, vol. 2, pp. 1245-1300. Cloth, 90 cents.
- 1891. In Annual Report for 1891, vol. 2, pp. 925-960. Cloth, 75 cents.
- 1892. In Annual Report for 1892, vol. 2, pp. 873-892. Cloth, 60 cents.
- 1893. In Annual Report for 1893, vol. 2, pp. 1705-1748. Cloth, 70 cents.
- 1894. In Annual Report for 1894, vol. 2, pp. 1451-1492. Cloth, 90 cents.
- 1895. In Annual Report for 1895, vol. 2, pp. 1425-1455. Cloth, 85 cents.
- 1896. In Annual Report for 1896, vol. 2, pp. 1435-1468. Cloth, 90 cents.
- 1897. In Annual Report for 1897, vol. 2, pp. 1601-1646. Cloth, 80 cents.
- 1898. In Annual Report for 1898, vol. 2, pp. 1753-1771. Cloth, 90 cents.
- 1899. In Annual Report for 1899, vol. 2, pp. 1372-1402. Cloth, 90 cents.
- 1900. In Annual Report for 1900, vol. 2, pp. 1738-1785. Cloth, 95 cents.
- 1901. In Annual Report for 1901, vol. 2, pp. 1459-1480. Cloth, 85 cents.
- 1902. In Annual Report for 1902, vol. 2, pp. 1229-1256. Cloth, 90 cents.
- 1903. In Annual Report for 1903, vol. 2, pp. 2333-2364. Cloth, 85 cents.
- 1904. In Annual Report for 1904, vol. 2, pp. 2257-2268. Cloth, \$1.25.
- 1905. In Annual Report for 1905, vol. 1, pp. 267-282. Cloth, 75 cents.
- 1906. In Annual Report for 1906, vol. 1, pp. 237-250. Cloth, 75 cents.
- 1907. In Annual Report for 1907, vol. 1, pp. 371-396. Cloth, 60 cents.
- *1908. In Annual Report for 1908, vol. 2, pp. 1023-1046. Cloth, 75 cents.
- 1909. In Annual Report for 1909, vol. 2, pp. 1297-1320.

REINDEER SERVICE.

- *1893. Senate Misc. Document No. 22, 52d Congress, 2d Session. Sheep, \$2.00.
- *1894. Senate Document No. 92, 53d Congress, 3d Session. Cloth, 25 cents.
- *1895. Senate Document No. 111, 54th Congress, 1st Session. Cloth, 35 cents.
- *1896. Senate Document No. 49, 54th Congress, 2d Session. Cloth, 35 cents.
- *1897. Senate Document No. 30, 55th Congress, 2d Session. Cloth, 20 cents.
- *1898. Senate Document No. 84, 55th Congress, 2d Session. Cloth, 40 cents.
- *1899. Senate Document No. 245, 56th Congress, 2d Session. Cloth, 40 cents.
- *1900. Senate Document No. 206, 56th Congress, 2d Session. Cloth, 40 cents.
- *1901. Senate Document No. 98, 57th Congress, 1st Session. Cloth, 50 cents.

- *1902. Senate Document No. 70, 57th Congress, 2d Session. Cloth, 40 cents.
- *1906. Senate Document No. 210, 58th Congress, 2d Session. Cloth, 50 cents.
- 1904. Senate Document No. 61, 58th Congress, 2d Session. Cloth, 50 cents.
- 1905. Senate Document No. 499, 59th Congress, 1st Session. Cloth, 60 cents.
- *1906. In Annual Report of the Commissioner of Education for 1906, vol 1, pp 237-255. Paper, 15 cents.
- 1907. In Annual Report of the Commissioner of Education for 1907, vol. 1, pp. 371-411. Cloth, 60 cents.
- *1908. In Annual Report of the Commissioner of Education for 1908, vol. 2, pp. 1046-1066. Cloth, 75 cents.
- 1909. In Annual Report of the Commissioner of Education for 1909, vol. 2, pp. 1321-1326.

GEOLOGY, MINERAL RESOURCES, WATER RESOURCES, AND MAPS.

Publications on the geology, mineral resources, and water resources, and maps of portions of Alaska are issued by the Geological Survey. In the following list, arranged geographically, are given the titles of some of the recent publications of the Geological Survey.

All of these publications can be obtained or consulted in the following ways:

1. A limited number are delivered to the Director of the Geological Survey, Washington, D. C., from whom they can be obtained, free of charge (except certain maps), on application.
2. A certain number are delivered to Senators and Representatives in Congress for distribution.
3. Other copies are deposited with the Superintendent of Documents, Washington, D. C., from whom they can be had at prices slightly above cost.
4. Copies of all government publications are furnished to the principal public libraries throughout the United States, where they can be consulted by those interested.

A complete list can be had on application to the Director of the Geological Survey.

An asterisk (*) indicates that the Geological Survey's stock of the paper is exhausted. *If a price is given the document can be had for that amount from the Superintendent of Documents, Government Printing Office, Washington, D. C.*

GENERAL.

REPORTS.

- *The geography and geology of Alaska, a summary of existing knowledge, by A. H. Brooks, with a section on climate, by Cleveland Abbe, jr., and a topographic map and description thereof, by R. U. Goode. Professional Paper 45, 1906, 327 pp. \$1.
- Placer mining in Alaska in 1904, by A. H. Brooks. In Bulletin 259, 1905, pp. 18-31.
- The mining industry in 1905, by A. H. Brooks. In Bulletin 284, 1906, pp. 4-9.
- The mining industry in 1906, by A. H. Brooks. In Bulletin 314, 1907, pp. 19-39.
- *The mining industry in 1907, by A. H. Brooks. In Bulletin 345, pp. 30-53. 45 cents.
- The mining industry in 1908, by A. H. Brooks. In Bulletin 379, 1909, pp. 21-62.
- The mining industry in 1909, by A. H. Brooks. In Bulletin 442, 1910, pp. 20-46.
- Railway routes, by A. H. Brooks. In Bulletin 284, 1906, pp. 10-17.
- Administrative report, by A. H. Brooks. In Bulletin 259, 1905, pp. 13-17.
- Administrative report, by A. H. Brooks. In Bulletin 284, 1906, pp. 1-3.
- Administrative report, by A. H. Brooks. In Bulletin 314, 1907, pp. 11-18.
- *Administrative report, by A. H. Brooks. In Bulletin 345, 1908, pp. 5-17. 45 cents.
- Administrative report, by A. H. Brooks. In Bulletin 379, 1909, pp. 5-20.
- Administrative report, by A. H. Brooks. In Bulletin 442, 1910, pp. 5-19.
- Notes on the petroleum fields of Alaska, by G. C. Martin. In Bulletin 259, 1905, pp. 123-139.
- The petroleum fields of the Pacific coast of Alaska, with an account of the Bering River coal deposits, by G. C. Martin. Bulletin 250, 1905, 64 pp.
- Markets for Alaska coal, by G. C. Martin. In Bulletin 284, 1906, pp. 18-29.
- The Alaska coal fields, by G. C. Martin. In Bulletin 314, 1907, pp. 40-46.

- Alaska coal and its utilization, by A. H. Brooks. In Bulletin 442, 1910, pp. 47-100.
- The possible use of peat fuel in Alaska, by C. A. Davis. In Bulletin 379, 1909, pp. 63-66.
- The preparation and use of peat as a fuel, by C. A. Davis. In Bulletin 442, 1910, pp. 101-132.
- *The distribution of mineral resources in Alaska, by A. H. Brooks. In Bulletin 345, pp. 18-29. 45 cents.
- Mineral resources of Alaska, by A. H. Brooks. In Bulletin 394, 1909, pp. 172-207.
- *Methods and costs of gravel and placer mining in Alaska, by C. W. Purington. Bulletin 263, 1905, 362 pp. 85 cents. Abstract in Bulletin 259, 1905, pp. 32-46.
- *Prospecting and mining gold placers in Alaska, by J. P. Hutchins. In Bulletin 345, 1908, pp. 54-77. 45 cents.
- Geographic dictionary of Alaska, by Marcus Baker; second edition by James McCormick. Bulletin 299, 1906, 690 pp.
- *Water-supply investigations in Alaska in 1906-7, by F. F. Henshaw and C. C. Covert. Water-Supply Paper 218, 1908, 156 pp. 25 cents.

TOPOGRAPHIC MAPS.

- Alaska, topographic map of; scale, 1:2,500,000. Preliminary edition by R. U. Goode. Contained in Professional Paper 45. Not published separately.
- Map of Alaska showing distribution of mineral resources; scale, 1:5,000,000; by A. H. Brooks. Contained in Bulletin 345 (in pocket).
- Map of Alaska; scale, 1:5,000,000; by Alfred H. Brooks.

SOUTHEASTERN ALASKA.

REPORTS.

- Preliminary report on the Ketchikan mining district, Alaska, with an introductory sketch of the geology of southeastern Alaska, by Alfred H. Brooks. Professional Paper 1, 1902, 120 pp.
- *The Porcupine placer district, Alaska, by C. W. Wright. Bulletin 236, 1904, 85 pp. 15 cents.
- The Treadwell ore deposits, by A. C. Spencer. In Bulletin 259, 1905, pp. 69-87.
- Economic developments in southeastern Alaska, by F. E. and C. W. Wright. In Bulletin 259, 1905, pp. 47-68.
- The Juneau gold belt, Alaska, by A. C. Spencer, pp. 1-137, and A Reconnaissance of Admiralty Island, Alaska, by C. W. Wright, pp. 138-154. Bulletin 287, 1906, 161 pp.
- Lode mining in southeastern Alaska, by F. E. and C. W. Wright. In Bulletin 284, 1906, pp. 30-53.
- Nonmetallic deposits of southeastern Alaska, by C. W. Wright. In Bulletin 284, 1906, pp. 54-60.
- The Yakutat Bay region, by R. S. Tarr. In Bulletin 284, 1906, pp. 61-64.
- Lode mining in southeastern Alaska, by C. W. Wright. In Bulletin 314, 1907, pp. 47-72.
- Nonmetalliferous mineral resources of southeastern Alaska, by C. W. Wright. In Bulletin 314, 1907, pp. 73-81.
- Reconnaissance on the Pacific coast from Yakutat to Alsek River, by Elliot Blackwelder. In Bulletin 314, 1907, pp. 82-88.
- *Lode mining in southeastern Alaska in 1907, by C. W. Wright. In Bulletin 345, 1908, pp. 78-97. 45 cents.
- *The building stones and materials of southeastern Alaska, by C. W. Wright. In Bulletin 345, 1908, pp. 116-126. 45 cents.
- *Copper deposits on Kasaan Peninsula, Prince of Wales Island, by C. W. Wright and Sidney Paige. In Bulletin 345, 1908, pp. 98-115. 45 cents.
- The Ketchikan and Wrangell mining districts, Alaska, by F. E. and C. W. Wright. Bulletin 347, 1908, 210 pp.
- The Yakutat Bay region, Alaska: Physiography and glacial geology, by R. S. Tarr; Areal geology, by R. S. Tarr and B. S. Butler. Professional Paper 64, 1909, 186 pp.
- Mining in southeastern Alaska, by C. W. Wright. In Bulletin 379, 1909, pp. 67-83.

- Mining in southeastern Alaska, by Adolph Knopf. In Bulletin 442, 1910, pp. 133-143.
- The occurrence of iron ore near Haines, by Adolph Knopf. In Bulletin 442, 1910, pp. 144-146.
- A water-power reconnaissance in southeastern Alaska, by J. C. Hoyt. In Bulletin 442, 1910, pp. 147-157.
- In preparation:
- The Yakutat Bay earthquake of September, 1890, by R. S. Tarr and Lawrence Martin. Professional Paper 69.

TOPOGRAPHIC MAPS.

- Juneau special quadrangle; scale, 1:62,500; by W. J. Peters. For sale at 5 cents each or \$3 per hundred.
- Berners Bay special map; scale, 1:62,500; by R. B. Oliver. For sale at 5 cents each or \$3 per hundred.
- Topographic map of the Juneau gold belt, Alaska. Contained in Bulletin 287, Plate XXXVI, 1906. Not issued separately.
- In preparation:
- Kasaan Peninsula special map; scale, 1:62,500; by D. C. Witherspoon, J. W. Bagley, and R. H. Sargent.
- Copper Mountain special map; scale, 1:62,500; by R. H. Sargent.

CONTROLLER BAY, PRINCE WILLIAM SOUND, AND COPPER RIVER REGIONS.

REPORTS.

- *The mineral resources of the Mount Wrangell district, Alaska, by W. C. Mendenhall. Professional Paper 15, 1903, 71 pp. Contains general map of Prince William Sound and Copper River region; scale, 12 miles = 1 inch.
- Bering River coal field, by G. C. Martin. In Bulletin 259, 1905, pp. 140-150.
- Cape Yaktag placers, by G. C. Martin. In Bulletin 259, 1905, pp. 88-89.
- Notes on the petroleum fields of Alaska, by G. C. Martin. In Bulletin 259, 1905, pp. 123-139. Abstract from Bulletin 250.
- The petroleum fields of the Pacific coast of Alaska, with an account of the Bering River coal deposits, by G. C. Martin. Bulletin 250, 1905, 64 pp.
- Geology of the central Copper River region, Alaska, by W. C. Mendenhall. Professional Paper 41, 1905, 133 pp.
- Copper and other mineral resources of Prince William Sound, by U. S. Grant. In Bulletin 284, 1906, pp. 73-87.
- Distribution and character of the Bering River coal, by G. C. Martin. In Bulletin 284, 1906, pp. 65-76.
- Petroleum at Controller Bay, by G. C. Martin. In Bulletin 314, 1907, pp. 89-103.
- Geology and mineral resources of Controller Bay region by G. C. Martin. Bulletin 335, 1908, 141 pp.
- *Notes on copper prospects of Prince William Sound, by F. H. Moffit. In Bulletin 345, 1908, pp. 176-178. 45 cents.
- *Mineral resources of the Kotsina and Chitina valleys, Copper River region, by F. H. Moffit and A. G. Maddren. In Bulletin 345, 1908, pp. 127-175. 45 cents.
- Mineral resources of the Kotsina-Chitina region, by F. H. Moffit and A. G. Maddren. Bulletin 374, 1909, 103 pp.
- Copper mining and prospecting on Prince William Sound, by U. S. Grant and D. F. Higgins, jr. In Bulletin 379, 1909, pp. 87-96.
- Gold on Prince William Sound, by U. S. Grant. In Bulletin 379, 1909, p. 97.
- Mining in the Kotsina-Chitina, Chistochina, and Valdez Creek regions, by F. H. Moffit. In Bulletin 379, 1909, pp. 153-160.
- Mineral resources of the Nabesna-White River district, by F. H. Moffit and Adolph Knopf. In Bulletin 379, 1909, pp. 161-180.
- Mineral resources of the Nabesna-White River district, by F. H. Moffit and Adolph Knopf; with a section on the Quaternary, by S. R. Capps. Bulletin 417, 1910, 64 pp.
- Mining in the Chitina district, by F. H. Moffit. In Bulletin 442, 1910, pp. 158-163.
- Mining and prospecting on Prince William Sound, by U. S. Grant. In Bulletin 442, 1910, pp. 164-165.

TOPOGRAPHIC MAPS.

- Map of Mount Wrangell; scale, 12 miles = 1 inch. Contained in Professional Paper 15. Not issued separately.
- Copper and upper Chistochina rivers, scale, 1:250,000; by T. G. Gerdine. Contained in Professional Paper 41. Not issued separately.
- Copper, Nabesna, and Chisana rivers, headwaters of; scale, 1:250,000; by D. C. Witherspoon. Contained in Professional Paper 41. Not issued separately.
- Controller Bay region special map; scale, 1:62,500; by E. G. Hamilton. For sale at 35 cents a copy or \$21 per hundred.
- General map of Alaska coast region from Yakutat Bay to Prince William Sound; scale, 1:1,200,000; compiled by G. C. Martin. Contained in Bulletin 335.
- In preparation:
- Chitina quadrangle map; scale, 1:250,000; by T. G. Gerdine and D. C. Witherspoon.

COOK INLET AND SUSITNA REGION.

REPORTS.

- The petroleum fields of the Pacific coast of Alaska, with an account of the Bering River coal deposits, by G. C. Martin. Bulletin 250, 1905, 64 pp.
- Coal resources of southwestern Alaska, by R. W. Stone. In Bulletin 259, 1905, pp. 151-171.
- Gold placers of Turnagain Arm, Cook Inlet, by F. H. Moffit. In Bulletin 259, 1905, pp. 90-99.
- Mineral resources of the Kenai Peninsula; Gold fields of the Turnagain Arm region, by F. H. Moffit, pp. 1-52; Coal fields of the Kachemak Bay region, by R. W. Stone, pp. 53-73. Bulletin 277, 1906, 80 pp.
- Preliminary statement on the Matanuska coal field, by G. C. Martin. In Bulletin 284, 1906, pp. 88-100.
- *A reconnaissance of the Matanuska coal field, Alaska, in 1905, by G. C. Martin. Bulletin 289, 1906, 36 pp.
- Reconnaissance in the Matanuska and Talkeetna basins, by Sidney Paige and Adolph Knopf. In Bulletin 314, 1907, pp. 104-125.
- Geologic reconnaissance in the Matanuska and Talkeetna basins, Alaska, by Sidney Paige and Adolph Knopf. Bulletin 327, 1907, 71 pp.
- Notes on geology and mineral prospects in the vicinity of Seward, Kenai Peninsula, by U. S. Grant. In Bulletin 379, 1909, pp. 98-107.
- Preliminary report on the mineral resources of the southern part of Kenai Peninsula, by U. S. Grant and D. F. Higgins. In Bulletin 442, 1910, pp. 166-178.
- Outline of the geology and mineral resources of the Illamna and Clark lakes region, by G. C. Martin and F. J. Katz. In Bulletin 442, 1910, pp. 179-200.
- Gold placers of the Mulchatna, by F. J. Katz. In Bulletin 442, 1910, pp. 201-202.
- In preparation:
- The Mount McKinley region, by A. H. Brooks, with descriptions of the igneous rocks and of the Bonifield and Kantishna districts, by L. M. Frindle. Professional Paper 70.

TOPOGRAPHIC MAPS.

- Kenai Peninsula, northern portion; scale, 1:250,000; by E. G. Hamilton. Contained in Bulletin 277. Not published separately.
- Reconnaissance map of Matanuska and Talkeetna region; scale, 1:250,000; by T. G. Gerdine and R. H. Sargent. Contained in Bulletin 327. Not published separately.
- Mount McKinley region; scale, 1:625,000; by D. L. Reaburn. Contained in Professional Paper 45. Not published separately.

ALASKA PENINSULA AND ALEUTIAN ISLANDS.

- Gold mine on Unalaska Island, by A. J. Collier. In Bulletin 259, 1905, pp. 102-103.
- Gold deposits of the Shumagin Islands, by G. C. Martin. In Bulletin 259, 1905, pp. 100-101.

- Notes on the petroleum fields of Alaska, by G. C. Martin. In Bulletin 259, 1905, pp. 128-139. Abstract from Bulletin 250.
- The petroleum fields of the Pacific coast of Alaska, with an account of the Bering River coal deposits, by G. C. Martin. In Bulletin 250, 1905, 64 pp.
- Coal resources of southwestern Alaska, by R. W. Stone. In Bulletin 259, 1905, pp. 151-171.
- The Herendeen Bay coal field, by Sidney Paige. In Bulletin 284, 1906, pp. 101-108.
- Mineral resources of southwestern Alaska, by W. W. Atwood. In Bulletin 379, 1909, pp. 108-152.
- In preparation:
- Geology and mineral resources of parts of Alaska Peninsula, by W. W. Atwood. Bulletin —.

YUKON BASIN.

REPORTS.

- The coal resources of the Yukon, Alaska, by A. J. Collier. Bulletin 218, 1903, 71 pp.
- *The gold placers of the Fortymile, Birch Creek, and Fairbanks regions, by L. M. Prindle. Bulletin 251, 1905, 80 pp. 35 cents.
- Yukon placer fields, by L. M. Prindle. In Bulletin 284, 1906, pp. 109-131.
- Reconnaissance from Circle to Fort Hamlin, by R. W. Stone. In Bulletin 284, 1906, pp. 128-131.
- The Yukon-Tanana region, Alaska; description of the Circle quadrangle, by L. M. Prindle. Bulletin 295, 1906, 27 pp.
- The Bonfield and Kantishna regions, by L. M. Prindle. In Bulletin 314, 1907, pp. 205-226.
- The Circle Precinct, Alaska, by Alfred H. Brooks. In Bulletin 314, 1907, pp. 187-204.
- The Yukon-Tanana region, Alaska; description of the Fairbanks and Rampart quadrangles, by L. M. Prindle, F. L. Hess, and C. C. Covert. Bulletin 337, 1908, 102 pp.
- *Occurrence of gold in the Yukon-Tanana region, by L. M. Prindle. In Bulletin 345, 1908, pp. 179-186. 45 cents.
- *The Fortymile gold placer district, by L. M. Prindle. In Bulletin 345, 1908, pp. 187-197. 45 cents.
- Water-supply investigations in Alaska, 1906 and 1907, by F. F. Henshaw and C. C. Covert. Water-Supply Paper 218, 1908, 156 pp.
- *Water supply of the Fairbanks district in 1907, by C. C. Covert. In Bulletin 345, 1908, pp. 198-205. 45 cents.
- The Fortymile quadrangle, by L. M. Prindle. Bulletin 375, 1909, 52 pp.
- Water-supply investigations in Yukon-Tanana region, 1906-1908, by C. C. Covert and C. E. Ellsworth. Water-Supply Paper 228, 1909, 108 pp.
- The Fairbanks gold-placer region, by L. M. Prindle and F. J. Katz. In Bulletin 379, 1909, pp. 181-200.
- Water supply of the Yukon-Tanana region, 1907-8, by C. C. Covert and C. E. Ellsworth. In Bulletin 379, 1909, pp. 201-228.
- Gold placers of the Ruby Creek district, by A. G. Maddren. In Bulletin 379, 1909, pp. 229-233.
- Placers of the Gold Hill district, by A. G. Maddren. In Bulletin 379, 1909, pp. 234-237.
- Gold placers of the Innoko district, by A. G. Maddren. In Bulletin 379, 1909, pp. 238-266.
- The Innoko gold-placer district, with accounts of the central Kuskokwim Valley and the Ruby Creek and Gold Hill placers, by A. G. Maddren. Bulletin 410, 1910, 87 pp.
- Sketch of the geology of the northeastern part of the Fairbanks quadrangle, by L. M. Prindle. In Bulletin 442, 1910, pp. 203-209.
- The auriferous quartz veins of the Fairbanks district, by L. M. Prindle. In Bulletin 442, 1910, pp. 210-236.
- Placer mining in the Yukon-Tanana region, by C. E. Ellsworth. In Bulletin 442, 1910, pp. 230-245.
- Occurrence of wolframite and cassiterite in the gold placers of Deadwood Creek, Birch Creek district, by B. L. Johnson. In Bulletin 442, 1910, pp. 246-250.

- Water supply of the Yukon-Tanana region, 1909, by C. E. Ellsworth. In Bulletin 442, 1910, pp. 251-283.
- The Koyukuk-Chandalar gold region, by A. G. Maddren. In Bulletin 442, 1910, pp. 284-315.
- In preparation:
Geology and mineral resources of Fairbanks quadrangle, by L. M. Prindle.

TOPOGRAPHIC MAPS.

- Fortymile quadrangle; scale, 1:250,000; by E. C. Barnard. For sale at 5 cents a copy or \$3 per hundred.
- The Fairbanks quadrangle; scale, 1:250,000; by T. G. Gerdine, D. C. Witherspoon, and R. B. Oliver. For sale at 10 cents a copy or \$6 per hundred.
- Rampart quadrangle; scale, 1:250,000; by D. C. Witherspoon and R. B. Oliver. For sale at 10 cents a copy or \$6 per hundred.
- Fairbanks special map; scale, 1:62,500; by T. G. Gerdine and R. H. Sargent. For sale at 10 cents a copy or \$6 per hundred.
- Yukon-Tanana region, reconnaissance map of; scale, 1:625,000 by T. G. Gerdine. Contained in Bulletin 251, 1905. Not published separately.
- Fairbanks and Birch Creek districts, reconnaissance maps of; scale, 1:250,000; by T. G. Gerdine. Contained in Bulletin 251, 1905. Not issued separately.
- Circle quadrangle, Yukon-Tanana region; scale, 1:250,000; by D. C. Witherspoon. Contained in Bulletin 295. In print as separate publication.

SEWARD PENINSULA.

REPORTS.

- A reconnaissance of the Cape Nome and adjacent gold fields of Seward Peninsula, Alaska, in 1900, by A. H. Brooks, G. B. Richardson, and A. J. Collier. In a special publication entitled "Reconnaissances in the Cape Nome and Norton Bay regions, Alaska, in 1900," 1901, 180 pp.
- A reconnaissance in the Norton Bay region, Alaska, in 1900, by W. C. Mendenhall. In a special publication entitled "Reconnaissances in the Cape Nome and Norton Bay regions, Alaska, in 1900."
- A reconnaissance of the northwestern portion of Seward Peninsula, Alaska, by A. J. Collier. Professional Paper 2, 1902, 70 pp.
- The tin deposits of the York region, Alaska, by A. J. Collier. Bulletin 229, 1904, 61 pp.
- Recent developments of Alaskan tin deposits, by A. J. Collier. In Bulletin 259, 1905, pp. 120-127.
- The Fairhaven gold placers of Seward Peninsula, by F. H. Moffit. Bulletin 247, 1905, 85 pp.
- The York tin region, by F. L. Hess. In Bulletin 284, 1906, pp. 145-157.
- Gold mining on Seward Peninsula, by F. H. Moffit. In Bulletin 284, 1906, pp. 132-141.
- The Kougarok region, by A. H. Brooks. In Bulletin 314, 1907, pp. 164-181.
- *Water supply of Nome region, Seward Peninsula, Alaska, 1906, by J. C. Hoyt and F. F. Henshaw. Water-Supply Paper 198, 1907, 52 pp. 15 cents.
- Water supply of the Nome region, Seward Peninsula, 1906, by J. C. Hoyt and F. F. Henshaw. In Bulletin 314, 1907, pp. 182-186.
- The Nome region, by F. H. Moffit. In Bulletin 314, 1907, pp. 128-145.
- Gold fields of the Solomon and Nukluk river basins, by P. S. Smith. In Bulletin 314, 1907, pp. 146-156.
- Geology and mineral resources of Iron Creek, by P. S. Smith. In Bulletin 314, 1907, pp. 157-163.
- The gold placers of parts of Seward Peninsula, Alaska, including the Nome, Council, Kougarok, Port Clarence, and Goodhope precincts, by A. J. Collier, F. L. Hess, P. S. Smith, and A. H. Brooks. Bulletin 328, 1908, pp. 343.
- *Investigation of the mineral deposits of Seward Peninsula, by P. S. Smith. In Bulletin 345, 1908, pp. 206-250. 45 cents.
- *The Seward Peninsula tin deposits, by Adolph Knopf. In Bulletin 345, 1908, pp. 251-267. 45 cents.
- *Mineral deposits of the Lost River and Brooks Mountain regions, Seward Peninsula, by Adolph Knopf. In Bulletin 345, 1908, pp. 268-271. 45 cents.
- *Water supply of the Nome and Kougarok regions, Seward Peninsula, in 1906-7, by F. F. Henshaw. In Bulletin 345, 1908, pp. 272-285. 45 cents.

- Water-supply investigations in Alaska. 1906 and 1907, by F. F. Henshaw and C. C. Covert. Water-Supply Paper 218, 1908, pp. 158.
- Geology of the Seward Peninsula tin deposits, by Adolph Knopf. Bulletin 358, 1908, pp. 72.
- Recent developments in southern Seward Peninsula, by P. S. Smith. In Bulletin 379, 1909, pp. 267-301.
- The Iron Creek region, by P. S. Smith. In Bulletin 379, 1909, pp. 302-354.
- Mining in the Fairhaven precinct, by F. F. Henshaw. In Bulletin 379, 1909, pp. 355-369.
- Water-supply investigations in Seward Peninsula in 1908, by F. F. Henshaw. In Bulletin 379, 1909, pp. 370-401.
- Geology and mineral resources of the Solomon and Casadepaga quadrangles, Seward Peninsula, by P. S. Smith. Bulletin 433, 1910, 234 pp.
- Mineral resources of the Nulato-Council region, by P. S. Smith and H. M. Eakin. In Bulletin 442, 1910, pp. 316-352.
- Mining in Seward Peninsula, by F. F. Henshaw. In Bulletin 442, 1910, pp. 353-371.
- Water-supply investigations in Seward Peninsula in 1909, by F. F. Henshaw. In Bulletin 442, 1910, pp. 372-418.
- In preparation:
- Geology of the area represented on the Nome and Grand Central special maps; by F. H. Moffit, F. L. Hess, and P. S. Smith.
- The water resources of Seward Peninsula; by F. F. Henshaw.

TOPOGRAPHIC MAPS.

The following maps are for sale at *5 cents a copy* or \$3 per hundred:

- Casadepaga quadrangle, Seward Peninsula; scale, 1:62,500; by T. G. Gerdine.
- Grand Central special, Seward Peninsula; scale, 1:62,500; by T. G. Gerdine.
- Nome special, Seward Peninsula; scale, 1:62,500; by T. G. Gerdine.
- Solomon quadrangle, Seward Peninsula; scale, 1:62,500; by T. G. Gerdine.

The following maps are for sale at *25 cents a copy* or \$15 per hundred:

- Seward Peninsula, northeastern portion of, topographic reconnaissance of; scale, 1:250,000; by T. G. Gerdine.
- Seward Peninsula, northwestern portion of, topographic reconnaissance of; scale, 1:250,000; by T. G. Gerdine.
- Seward Peninsula, southern portion of, topographic reconnaissance of; scale, 1:250,000; by T. G. Gerdine.

NORTHERN ALASKA.

REPORTS.

- A reconnaissance from Fort Hamlin to Kotzebue Sound, Alaska, by way of Dall, Kanuti, Allen, and Kowak rivers; by W. C. Mendenhall. Professional Paper 10, 1902, pp. 68.
- *A reconnaissance in northern Alaska across the Rocky Mountains, along the Koyukuk, John, Anaktuvuk, and Colville rivers, and the Arctic coast to Cape Lisburne, in 1901; by F. C. Schrader and W. J. Peters. Professional Paper 20, 1904, pp. 139.
- Coal fields of the Cape Lisburne region; by A. J. Collier. In Bulletin 259, 1905, pp. 172-185.
- Geology and coal resources of Cape Lisburne region, Alaska; by A. J. Collier. Bulletin 278, 1906, pp. 54.

TOPOGRAPHIC MAPS.

- Fort Yukon to Kotzebue Sound, reconnaissance map of; scale, 1:1,200,000; by D. L. Reaburn. Contained in Professional Paper 10. Not published separately.
- Koyukuk River to mouth of Colville River, including John River; scale, 1:1,200,000; by W. J. Peters. Contained in Professional Paper 20. (Out of stock.) Not published separately.

MAPS FOR SALE.

The following maps of Alaska are for sale by the Director of the Geological Survey:

Locality. (Title of map or name of quadrangle.)	Scale.	Contour interval.	Price.
Map of Alaska, 17 by 24.....	1:5,000,000	<i>Fet.</i>	\$0.10
SOUTHEASTERN ALASKA.			
Juneau Special.....	1:62,500	100	.05
Berners Bay Special.....	1:62,500	50	.05
In preparation:			
Kasaan Peninsula Special.....	1:62,500	50	.....
Copper Mountain Special.....	1:62,500	100	.....
CONTROLLER BAY, PRINCE WILLIAM SOUND, AND COPPER RIVER REGION.			
Controller Bay Region.....	1:62,500	50	.35
In preparation:			
Chitina (Reconnaissance).....	1:250,000	200	.....
Nisina Special.....	1:62,500	50	.....
YUKON BASIN.			
Fortymile (Reconnaissance).....	1:250,000	200	.05
Fairbanks Special.....	1:62,500	25	.10
Fairbanks (Reconnaissance).....	1:250,000	200	.25
Rampart (Reconnaissance).....	1:250,000	200	.10
In preparation: Circle (Reconnaissance).....	1:250,000	200	.....
SEWARD PENINSULA.			
Southern portion (Reconnaissance).....	1:250,000	200	.25
Grand Central Special.....	1:62,500	25	.05
Nome Special.....	1:62,500	25	.05
Casadepega.....	1:62,500	25	.05
Solomon.....	1:62,500	25	.05
Northeastern portion (Reconnaissance).....	1:250,000	200	.25
Northwestern portion (Reconnaissance).....	1:250,000	200	.35

REPORT OF THE GOVERNOR OF ARIZONA.

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REPORT OF THE GOVERNOR OF ARIZONA.

OFFICE OF THE GOVERNOR,
Phoenix, Ariz., September 15, 1910.

SIR: I have the honor to submit herewith my annual report, showing the condition of the affairs of the Territory and its progress and development during the year ended June 30, 1910.

The prosperity which was so marked during the year covered in my last report has continued, and each of our important industries—farming, stock growing, and mining—have had a satisfactory growth, which has resulted in a substantial increase in the taxable wealth of the Territory. The people of the Territory as a whole have reason to congratulate themselves on the progress made during the year and the prospect for even greater advances during the coming year.

STATEHOOD.

In my annual report for 1909 I expressed the hope that an enabling act admitting the Territory into the Union as a State might be passed by the present Congress. That hope was realized by the passage of the act of June 20, 1910. In accordance with the terms of this act, on June 28, 1910, I ordered an election of 52 delegates to a constitutional convention to form a constitution for the proposed State of Arizona, to be held on September 12, 1910. In the proclamation calling for said election there was specified the apportionment of delegates to the various counties of the Territory as made by the governor, chief justice, and secretary of the Territory on June 25, 1910.

The act requires that the convention shall meet on the fourth Monday after the election of delegates, which will be on the 10th day of October, 1910. Assuming that the convention will not be in session longer than thirty days, I estimate that the election on the adoption or rejection of the constitution which shall be framed by the convention may be held by January 15, 1911, and if the constitution be adopted, it may be in the hands of the President and of Congress for approval in time for their action thereon before the end of the present Congress. If this program shall be carried out there is every reason to expect that the new state government will be in operation by the end of the present fiscal year.

We anticipate such benefits from admission that the prospect of any considerable delay or the possibility that the constitution which may be adopted may not be approved are matters of grave concern to the people of the Territory.

POPULATION.

The census of 1910 shows the population of the Territory to be 204,354. The immigration to the Salt River Valley and other agricultural sections of the Territory continues to increase at a satisfactory rate. The prospect of early statehood has had a perceptible effect in increasing the number of homestead entries not only in sections where irrigation is practical, but also in those localities where it is possible to grow crops by dry-farming methods. The subdivision of the lands in the Salt River Valley into small holdings is proceeding at a satisfactory rate and the farming population has been added to considerably during the year.

TERRITORIAL INSTITUTIONS.

Under the general supervision of the board of control the Territory maintains a prison, an asylum for the insane, an industrial school, and a home for aged and infirm pioneers (now under course of construction), and a university and two normal schools.

TERRITORIAL PRISON.

Since my last report the new prison at Florence has been completed and the prisoners have been successfully removed from Yuma. The new prison is admirably adapted for the safe, sanitary, and economical keeping of its inmates. It is equipped with its own electric-light plant, water works, sewer system, laundry, hospital, cold-storage and ice plant, and arrangements are now under way to bring under cultivation almost forty acres of land which will enable the prison to raise practically everything required in the nature of vegetables or feed for stock. There are now under construction two additional buildings similar to the present radial sections which will provide additional cell room and larger quarters for laundry and store room. These buildings are a part of the original plan for the prison, but their construction has been withheld until the present time as they could be more economically built after the removal of all the prisoners from Yuma to Florence.

The use of prison labor in the construction of the new prison and the Gila River bridge has proved a successful experiment. Labor thus furnished, while voluntary on the part of the prisoners, has in the main been satisfactory and there has been little or no trouble in maintaining discipline and in guarding the prisoners while at work. For each day's labor credit is given of one day on each man's term, and the experiment has illustrated the value of regular employment in the management of prisoners confined in penal institutions.

In spite of the fact that the Territory practically maintained two institutions for the first quarter of the past year and that it was necessary to employ extra guards for the work in and around the new prison and on the Gila River bridge the cost of maintenance shows a decrease from the last report, as will be seen from the following comparative statement:

Comparative statement of expenses of territorial penitentiary for the fiscal years 1909 and 1910.

	Fiscal year ended June 30—	
	1909.	1910.
Gross expense.....	\$125,910.86	\$115,456.24
Total earnings.....	11,464.01	12,779.81
Net expense.....	114,446.85	102,676.93
Salaries and wages.....	49,669.72	46,758.48
Maintenance and repairs.....	76,241.24	68,697.76
Gross per capita cost.....	302.7848	296.5381
Net per capita cost.....	275.2068	263.71
Gross daily per capita cost.....	.8395	.8124
Net daily per capita cost.....	.7599	.7324
Average attendance.....	415.858	389.347

On June 30, 1910, there were in the territorial prison 437 prisoners; there were received during the year 256, of which 35 were United States prisoners; there were discharged during the year 328, as follows:

By expiration of sentence.....	52
By commutation of sentence.....	188
By parole.....	31
By pardon.....	5
By escape.....	5
By execution.....	1
By death.....	4
By order of Supreme Court.....	2

Of the inmates on June 30, 1910, 434 were men and 3 were women, and by race they were classified as follows:

Whites:	
Males.....	145
Females.....	1
Mexicans, males.....	236
Negroes:	
Males.....	29
Females.....	1
Japanese, males.....	2
Indians:	
Males.....	21
Females.....	1
Chinese, males.....	1

TERRITORIAL ASYLUM FOR THE INSANE.

During the year a new hospital building at the Asylum for the insane was completed, furnished, and occupied, relieving to a large extent the crowded condition of other buildings. At the present rate of increase in the population of the institution further additions will soon be necessary, and unless some provision is made in the near future it will be necessary to again utilize the old basement wards, which are wholly inadequate.

The institution is equipped with an up-to-date cold-storage and ice plant installed during the past year. As in the case of the prison, much of the work of construction has been done by the inmates of the institution, who have rendered efficient service of benefit alike to themselves and the institution, and an extensive garden has been

brought into cultivation by the inmates under the direction of a competent gardener, which furnishes the institution with much of its table supplies and feed for the stock.

The number of inmates in the institution on June 30, 1910, was 376; of these, 290 were males and 77 females. There were admitted 141 new patients during the year and 3 were returned from parole and 1 from escape. Thirty-four patients were discharged as cured, 10 were paroled, 41 died, and 5 escaped.

TERRITORIAL INDUSTRIAL SCHOOL.

Conditions at the Territorial Industrial School are practically unchanged since my last report. There has been but a slight increase in the number of inmates, the record now showing 62 pupils, of which 58 are boys and 4 girls.

While the equipment of the school is wholly inadequate and its surroundings not well adapted to its purposes, the progress of the inmates during the year has been marked. Particular care is taken to safeguard the health of the inmates, and the year's record shows but little sickness. The success of the management in the reformation and training of the youths committed to it has been highly gratifying and warrants the installation of a more complete equipment, including shops, etc., to afford instruction along practical lines. I do not deem the present site a proper one and believe the institution should be moved into a farming community, where these things could be provided for and a broader range of instruction made available.

CAPITOL BUILDING AND GROUNDS.

There is no public building within the Territory to which the people may point with greater pride than the Capitol Building, yet it is rapidly becoming inadequate. For the past year it has been crowded to its utmost capacity, every room being occupied, including many of the committee rooms of the legislative halls. Some steps should be taken in the very near future looking to the erection of another wing on the rear of the present building.

With each year the grounds become more extensive as well as more attractive, and sufficient provision should be made for their maintenance and continued improvement in the future.

PIONEERS' HOME.

Complying with the provisions of chapter 23 of the session laws of 1909, the site offered by Hon. Frank M. Murphy, of Prescott, for the erection of a home for the aged and infirm pioneers was accepted by the Territory and the erection of a suitable building commenced.

The site is beautifully located in what is known as the Murphy Park, Prescott, and lies on the crest of a hill overlooking the city of Prescott and the surrounding country. The building is to be a brick structure of granite foundations, with side porches on the first and second stories, modern in every respect, with hard-wood floors throughout, running water and steam heat in every room, an infirmary, lounging rooms, a library, cold storage, servants' quarters, and ample accommodations for about forty inmates. The construction and design

of the building are such as to admit of extension from time to time as the population increases, it being possible to enlarge it to twice its present capacity.

W. S. Elliott, of Prescott, is the architect, and Henry Rockmark, of Prescott, the contractor. Maj. A. J. Doran, of Prescott, has been placed in charge of the work as superintendent of the construction, and upon the completion of the home will have full supervision of its maintenance.

The Territory is indebted to the officers and people of the city of Prescott and the board of supervisors of Yavapai County for the assistance they have rendered to the board of control.

TERRITORIAL UNIVERSITY.

In efficiency and in the facilities afforded for the higher education of our youths the University of Arizona ranks with the most advanced educational institutions in the country. It is prepared, in addition to the ordinary academic courses, to furnish those leading to the degrees in mining engineering, metallurgy, and civil engineering. The faculty is composed of teachers of the highest standing in educational work. The equipment is of the best and is ample for the requirements of advanced work in all departments of science. The student registration for the year was 113 for the college proper. A class of 10 was graduated, 4 taking the degree of bachelor of science in mining engineering, 1 bachelor of science in mechanical engineering, 3 bachelor of science, and 2 bachelor of philosophy.

With the extension of the high-school system in the Territory the university is becoming more and more a recognized part of our system of public education and a larger percentage of high-school graduates are entering the university than formerly. This justifies the hope that the attendance of students from the Territory will soon be commensurate with the cost of its maintenance and the efforts made heretofore toward the building up of the institution.

NORMAL SCHOOLS.

The two normal schools maintained by the Territory, one at Tempe and the other at Flagstaff, show satisfactory increases in attendance over 1909. At the Tempe Normal School there were enrolled 226 students. In the training-school department there were enrolled 176 pupils, making a total enrollment for the school of 402. The graduating class numbered 21. The faculty is composed of 20 teaching members besides a librarian and secretary. During the year a building to be used for a gynasium and auditorium was completed. There are now nine buildings on the campus, and the total valuation of the buildings, grounds, and other property of the institution is \$346,000. At the Flagstaff school there was an enrollment of 68 students during the year. The graduating class numbered 8. The faculty consists of 8 members, 4 men and 4 women. The Flagstaff normal maintains each year, beginning in July, a summer session, the cool climate of Flagstaff permitting school work through the entire year. The enrollment for the summer session was 48.

A high percentage of graduates of both institutions engage in teaching. They have no difficulty in securing positions—in fact, the supply is not equal to the demand.

PUBLIC SCHOOLS.

The report of the superintendent of public instruction for the Territory covering the fiscal year ended June 30, 1910, shows a satisfactory growth in all branches of our educational system. The last school census shows a school population of 38,791, an increase of 2,062 over the previous year. Manual training and domestic schools have been established in several counties of the Territory, with good results. During the year the territorial board of education adopted a new course of study for use in the primary and grammar schools and also a uniform course of study for high schools. In this way a consistent course of study from the primary schools up through all the grades leading to the Territorial University and to the normal schools has been established. Much attention has been given by the territorial board of education to the matter of school hygiene and sanitation. The board has been working in conjunction with the territorial board of health looking to the adoption of rules and regulations governing these matters.

Each year a joint teachers' institute, under the management of the territorial teachers' association, is held during November. At the last institute held in Phoenix there was an attendance of more than 500 teachers, every section of the Territory being represented.

During the year an educational publication known as the *Arizona Journal of Education* was started in the interest of our public schools. This publication promises to serve a useful purpose in advancing the standard of teaching and in increasing public interest in our home educational institutions.

The following summary of school statistics and school data is taken from the report of the superintendent of public instruction:

School statistics, 1909 and 1910.

SCHOOL POPULATION AND ATTENDANCE.

	1908-9.	1909-10.
Number of children:		
Between 6 and 21 years of age.....	36,729	38,791
Between 8 and 14 years of age.....	19,317	19,481
Native born, native parents.....	21,422	22,777
Native born, one parent foreign.....	4,038	4,038
Native born, both parents foreign.....	7,154	7,359
Foreign born.....	4,082	4,082
Enrolled in the public schools.....	27,639	30,090
Enrolled in high schools.....	909	1,213
Attending private schools alone.....	1,770	2,014
Who have not attended any school.....	10,083	9,913
Average daily attendance on the public schools.....	17,863	19,144
Average daily attendance on the high schools.....	743	960
Percentage school population enrolled.....	75	80
Percentage of enrollment in daily attendance.....	64	66

SCHOOL DISTRICTS AND SCHOOLS.

School districts.....	319	333
New school houses built.....	16	26
High schools (special law).....	11	14
Grammar schools.....	208	228
Primary schools.....	474	508
Volumes in school libraries.....	32,841	36,936

School statistics, 1909 and 1910—Continued.

TEACHERS.

	1908-9.	1909-10.
Male teachers employed.....	122	142
Female teachers employed.....	671	709
Teachers holding first-grade credentials.....	502	587
Teachers holding second-grade credentials.....	233	203
Average monthly salary:		
Male teachers.....	\$104.64	\$107.18
Female teachers.....	79.61	80.96

CERTIFICATION OF TEACHERS.

Applicants for certificates on examination.....	237	219
First-grade certificates issued on examination.....	31	26
Second-grade certificates issued on examination.....	119	85
Life diplomas granted.....	7	11
Educational diplomas issued.....	4	5
Certificates granted to graduates of universities, etc.....	16	47
Manual training certificates issued.....	8	13
Certificates granted on life diplomas from other States.....	28	48
Certificates granted on state normal diplomas.....	94	113
Graduates of territorial normal schools:		
Tempe.....	50	22
Flagstaff.....	7	8

Total receipts and expenditures of school moneys for the year ended June 30, 1910.

1. Balances, July 1, 1909:	
(a) Unapportioned county school fund, including salary, expense, and reserve.....	\$60,280.71
(b) School-district funds.....	87,369.10
(c) Building funds.....	67,224.98
(d) Miscellaneous funds.....	57,550.96
Total school funds on hand July 1, 1910.....	272,425.75
2. Receipts:	
(a) Territorial fund.....	64,715.14
(b) County school taxes.....	499,745.19
(c) School (poll) taxes.....	80,831.11
(d) Licenses, fines, and other sources.....	48,416.81
(e) Special tax for maintaining school.....	57,276.45
(f) Sale of bonds, etc.....	259,655.16
(g) Miscellaneous sources.....	124,470.75
Total receipts, including balances.....	1,407,536.36
3. Expenditures:	
(a) School maintenance.....	695,106.15
(b) Building purposes.....	183,604.69
(c) Miscellaneous purposes.....	107,019.26
(d) From contingent, expense, and salary funds.....	14,898.27
Total expenditures.....	1,000,628.37
4. Balance, June 30, 1910:	
(a) Unapportioned county school fund.....	81,624.79
(b) School-district funds.....	103,072.04
(c) Building funds.....	146,318.08
(d) Miscellaneous funds.....	75,893.08
Total school funds on hand June 30, 1910.....	406,907.99

School property and bonded debt.

Valuation of lots, buildings, and furniture.....	\$1, 612, 225. 87
Value of libraries.....	27, 531. 53
Value of apparatus.....	48, 896. 00
Total value of school property.....	1, 688, 653. 40
Bonded debt of districts.....	1, 213, 197. 84

HISTORIAN.

Realizing the importance of collecting and perpetuating existing data needed for compiling an accurate and comprehensive history of Arizona, the legislature created the office of historian, and during the past year extensive research has been carried on and marked progress made in the work.

IRRIGATION.

The dam at Roosevelt is to all intents and purposes completed. Some work at the top and on the approaches remains to be done. The late winter floods were smaller than usual, so that comparatively little water was impounded, yet this water has been of such immense benefit during the year as to prove beyond question the efficiency of the dam. The impounded water supplementing the normal flow of the Salt and Verde rivers has enabled the farmers in the Salt River Valley to grow the largest crops on the largest acreage in the history of the valley.

The precipitation on the watershed of Salt River tributary to the dam is usually light in the summer, but heavy in the winter season. If the normal precipitation in the shape of rain and snow should occur during the next winter, no apprehension need be felt that any shortage of water should occur in the Salt River Valley for many years to come, if ever.

The Reclamation Service during the year began the construction of the siphon under the Colorado River which is needed to carry the water from the Laguna dam on to the Arizona side for use on the lands below Yuma. This work is proceeding somewhat slowly, but it is hoped that it will be completed early during the year 1911.

Crops generally throughout the Territory have been good, especially in the irrigated sections. Prices of farm products have been high, with a tendency to increase rather than decrease, so that farmers have greatly prospered. Prices for land under ditch with water rights have increased somewhat, yet, on the whole, everything being considered, have not been inflated beyond their true value measured by their earning capacity.

FRUIT GROWING.

The winter of 1909-10 was the coldest for many years. Some damage was done to young citrus trees and to the fruit, but on the whole the Territory suffered less in this respect than did the citrus-fruit growing sections of California. The experience of the year has demonstrated that in the Salt River Valley the orange section is much larger and more extensive than was heretofore thought to exist. Owing to the early frost, a smaller crop of oranges and grape fruit was harvested than in 1909, but the prices received were satisfactory. A large acreage was planted during the spring, and this acreage would

have been largely increased had it not been for the difficulty in securing trees for planting. Year by year the mountain valleys and uplands adapted to apples, pears, plums, and other fruits are being utilized, so that the fruit industry continues to increase in importance and to be more generally followed as a means of profit throughout the Territory.

OSTRICH RAISING.

The past year has shown a marked increase in ostrich raising in the Territory, there being now considerably over 6,000 birds in the Salt River Valley, constituting more than 80 per cent of all the ostriches in the United States.

The fact that ostrich raising was begun in the Territory in 1892 by the importation from California of about 20 birds and has in less than twenty years grown to such vast proportions demonstrates the adaptability of climatic and feed conditions to this industry. The record of hatching during the past few years has equaled any reported from South Africa and has far surpassed that of any other ostrich district.

The profits of the business under such conditions are large. The birds are plucked every eight months with an average yield from full-grown birds of 1 pound of feathers per bird to each plucking, a value in the market of \$25 to the bird. The annual cost of running ostriches in the Salt River Valley is about \$10 per bird. The principal food is alfalfa, and at least 5 grown birds can be supported to the acre of alfalfa.

This promises to be one of the most important industries in the Salt River Valley and other localities similarly situated, and the profits realized are such as to attract capital to the business.

THE LIVE-STOCK INDUSTRY.

The live-stock industry of the Territory has had a satisfactory year, particularly as regards prices. In some parts of the Territory range conditions have not been good, owing to the unusual cold of the winter extending late into the spring with light rainfall. This condition was especially hard on those sheep men who brought their flocks from the northern part of the Territory onto the desert north and east of Phoenix.

The secretary of the live-stock sanitary board in his report for the year suggests that losses on cattle ranges for the most part are due not so much to lack of feed as to a scarcity of drinking places. Cattle in a period of comparative drought congregate in the vicinity of tanks and other watering places, which results in an exhaustion of the feed at such places. In this connection I desire again to call attention to the pending bill, known as H. R. 12425, introduced by Mr. Cameron, Delegate in Congress from Arizona. This bill is one which is intended to relieve such a situation as that mentioned above. It has the approval of the territorial live-stock sanitary board and of cattle men generally throughout the Territory. The bill provides for the location and entry for well purposes of 40 acres of land not chiefly valuable for some other purposes, such lands to be paid for after the completion of the well at the rate of \$1.25 per acre. It is hoped that Congress will give this measure early and favorable consideration.

The live-stock sanitary board in its report voices what I believe to be the prevailing sentiment among range stock men of the Territory in favoring the leasing of public grazing lands by the United States Government under such terms as will admit of and encourage the improvement and conservation of the range by lease holders.

It is gratifying to be able to report that through the concerted action of the Interior Department and the Department of Justice a satisfactory adjustment and arrangement has been made permitting the maintenance of the quarantine fence around what is known as Slaughter's range in Cochise County.

It has become apparent that some plan for fencing the Roosevelt reservoir must be adopted to guard against serious loss occasioned by cattle bogging in the mud flats along the borders of the reservoir. An examination is being made of the subject by the live-stock sanitary board with a view of ascertaining the location and extent of such fence and its probable cost.

LIVE STOCK AND SHEEP SANITARY BOARDS.

The live-stock sanitary board has jurisdiction to enforce quarantine regulations, rules looking to the protection of the public from diseased and unwholesome meat products, the protection of the range interest from theft, and, in general, to exercise supervision over the range-stock interests of the Territory. The enforcement of quarantine regulation is under the management of the territorial veterinarian.

The sheep sanitary commission of the Territory reports that the condition of the sheep on the range as regards scabies infection was more favorable than ever before. The commission reports that the moving of flocks from winter to summer ranges in the spring and their return to the winter from the summer ranges in the fall is a great assistance in the eradication of the infection, inasmuch as this movement results in a more frequent dipping of the flocks.

During the year the Secretary of Agriculture by order released from federal quarantine restrictions all of Arizona except Apache and Navajo counties in so far as interstate movement of sheep is concerned.

ARIZONA FAIR COMMISSION.

The Territory maintains a fair, which is held at Phoenix in November of each year. The grounds on which the fair is held were acquired during the year so that the Territory now holds title to the same. The fair is each year becoming more attractive and enlisting greater interest on the part of the people of the whole Territory. The exhibits, especially in the line of live stock, are remarkable for their high class, variety, and size.

HORTICULTURAL COMMISSION.

The importance of the work of the commission to the fruit industry of the Territory can scarcely be overestimated. The legislature, in providing for the commission, appropriated the sum of \$3,000 to pay the expenses of the work of the commission for each of the years ended June 30, 1910, and June 30, 1911. Notwithstanding this small

appropriation the report of the commission shows that the benefits realized from the year's work have been most gratifying in the protection of orchards already planted and in preventing infected trees from being introduced. So far our orchards have been comparatively free from destructive pests. Some damage has been done to apple orchards in sections of the Territory by the woolly aphis. Experimental work has been done by the entomologist of the commission to determine the best method of destroying the pest. The results thus far are promising. The most serious pest so far established in the Territory is the codling moth, which has attached in places to apple and pear orchards.

The citrus orchards have thus far escaped serious infection from destructive scale. During the year shipments of orange trees from Florida have been found in some instances to be infected with mealy bugs. The consignments found to be infected were destroyed in accordance with the provisions of the law. It is to be regretted that a larger appropriation is not available to the commission, so that it may carry on its work of investigation and also its experimental work so as to give the largest measure of protection possible within the scope of its authority conferred by the act creating the commission.

AGRICULTURAL EXPERIMENTAL STATION.

During the year the work of the station has been conducted along established lines of experimentation. The offices, laboratory, and greenhouses are located in the university buildings at Tucson. Experiments in cultural work and sheep breeding are conducted upon the station farm near Phoenix. Date palms imported from the old world are grown at Tempe on lands containing alkali, which are thus especially suited to their growth. At Yuma on the bottom lands subject to overflow from the Colorado River, an intensive garden for purposes of demonstration is operated. In cooperation with the United States Department of Agriculture a large range reserve is maintained under fence near Tucson. Experimental dry farms near Douglas and Snowflake are in operation. The attempt is thus being made to cover problems in agriculture embracing a variety of soils, climate, and water supply commensurate with the varied agricultural resources of the Territory.

The work of the experimental station is made available to the public through bulletins issued from time to time for distribution to the farmers throughout the Territory. Members of the station from time to time deliver lectures at farmers' institutes on the various subjects embraced within their work.

Prof. R. H. Forbes, the director of the experimental station within the Territory, estimates that the potential water supply for purposes of irrigation, including the ordinary flow of the streams, storage, and subterranean waters available by means of pumping, at approximately 4,393,000 acre-feet annually, sufficient to permit of the intensive farming of over 1,000,000 acres of land. This estimate does not include small pump-water supplies supplementing dry farming at higher elevations. The disbursements for the fiscal year ending June 30, 1910, for all purposes from the federal and territorial appropriations amounted to \$35,529.17.

TERRITORIAL HIGHWAYS.

During the year the actual work of the construction of a system of territorial highways was begun and prosecuted with vigor. The money raised by the levy of the territorial road tax for the year 1909 did not become available until the end of the calendar year, and, hence, little but preliminary work was possible until the beginning of the present calendar year. During the year approximately 700 miles of road were surveyed under the direction of the territorial engineer. These surveys followed in general the course of the two territorial highways which were designated by the board of control last year. One of these, beginning at the town of Douglas, runs in a northwesterly direction through Bisbee, Tucson, Florence, Mesa, Tempe, and Phoenix, and from thence north over the Bradshaw Mountains into Prescott, and thence runs east, crossing the Verde River near Camp Verde into the Mogollon Mountains, and thence runs north through Flagstaff to the Grand Canyon. The other highway, beginning at Yuma, runs approximately east through Phoenix, Tempe, Mesa, Globe, and along the Gila River to Clifton and Morenci, with a branch of the latter road running south from a point in Graham County through the Sulphur Springs Valley to Douglas.

It has been the policy of the board of control to begin actual road work at points where the greatest immediate benefits may be secured. A contract was let for the construction of about 32 miles of road between Roosevelt and Globe. About 20 miles of this road was completed at the end of the calendar year. The cost of this will be approximately \$2,000 per mile.

A contract was also let for the building of 13 miles of road beginning at Prescott and running south along the west slope of Mount Union. Being in a mountain region, the cost of this road therefore is necessarily high, being approximately \$3,000 per mile.

Both of these roads furnish object lessons of what may be done in the matter of road making and illustrate the value of scientific road building under the authority of the Territory and the great benefit which is to be derived from the completion of the scheme of roads proposed to be constructed.

The Territory is constructing a bridge across the Gila River near Florence, the site of the territorial prison. This bridge is of the type known as the girder type of T-beam construction of reenforced concrete. It will be 700 feet long, having 4 main beams or girders of 14 spans of 50 feet each, resting on concrete piers which, in turn, are founded on 30-foot piles.

Actual work was begun on the bridge about the 1st of April. It has progressed sufficiently to indicate that it will be completed by the 1st of November of the present year. The bridge will afford passage from the Arizona and Eastern Railway across the Gila River to the prison. The necessity for the construction of the bridge for this purpose was so great that the board of control considered it necessary to push its construction in advance of the beginning of actual road building on that part of the north-south highway of which it will be a part.

Plans and specifications have been made for the building of a bridge across the Verde River in Yavapai County on the proposed north-south highway leading from Prescott to the Grand Canyon. This

bridge will have a length of approximately 300 feet and will be built on lines similar to the Florence bridge.

Under the law the board of control directed the territorial auditor to levy a territorial road tax for the year 1910 in accordance with the following list:

Apache.....	\$0.05	Mohave.....	\$0.05
Cochise.....	.25	Navajo.....	.05
Coconino.....	.25	Pima.....	.25
Gila.....	.25	Pinal.....	.25
Graham.....	.25	Santa Cruz.....	.05
Yavapai.....	.25	Yuma.....	.25
Maricopa.....	.25		

The plans of the board for the expenditure of the money to be realized from the foregoing levy call for actual road work in each of the counties in which any part of the designated highways is situated. While it will undoubtedly require many years to complete the building of the highways contemplated, yet by the wise selection of points at which work is to be done and the construction of necessary bridges travel along the course of the proposed highways will be possible and made comparatively easy long before the actual completion of the roads.

NATIONAL GUARD.

During the year the regimental organization of twelve companies of infantry became complete, so that now our military organization consists of twelve companies of infantry and one squadron of cavalry. The organization consists of 50 officers and 703 men. The regiment is divided into three battalions of four companies each. During the year Capt. Edward O. C. Ord, U. S. Army, retired, was detailed for duty to the guard and appointed inspector-general with the rank of colonel. In August, 1909, a rifle team, representing the national guard, competed at Camp Perry and won thirty-first place among 48 teams, landing at the head of the "C" class. This year a team competed at Camp Perry and stood in the twenty-third place, thus having made a very considerable advance in standing in the list of the competitors.

During September the guard, under command of Colonel McClintock, held an annual encampment at Camp Sloan, near Prescott, with good results in the matter of discipline and experience in battalion drill and field practice.

On account of the rapid growth of the guard its equipment is incomplete, the allotment for that purpose falling short of the requirements. Armory accommodations are entirely inadequate and this should be remedied as soon as possible. On the whole the Territory has reason to be proud of its national guard.

RAILWAY COMMISSION.

Under the law creating the Arizona railway commission its powers are limited to investigating the modes of operation of all schedules of rates and charges of all common carriers of freight and passengers doing business in the Territory, and should the commission discover that any such tariffs, schedules of rates and charges are discrimina-

tory, excessive, unreasonable, or in violation of the act to regulate commerce it is made its duty to seek a correction of the same from the common carriers which may be at fault in the matter, and, failing to secure proper adjustments, to bring such matters before the Interstate Commerce Commission. The commission has no power to fix rates nor to issue orders in connection therewith. Acting within the circumscribed authority given by the act, the commission has secured during the year reductions in passenger rates of 1 cent per mile on the Arizona and California, the Bradshaw Mountain, the Prescott and Eastern, the Santa Fe, Prescott and Phoenix, the Maricopa and Phoenix, the Phoenix and Eastern, and the New Mexico and Arizona railroads. It has also secured important reductions in freight rates to and from Globe, on the Gila Valley, Globe and Northern Railway. It has also secured reduced local rates running from 8 per cent to 32 per cent in class rates from practically all the lines in the Territory.

At the suggestion of the commission the Southern Pacific Railway has made a reduction of about 25 per cent in interstate class rates between El Paso, Tex., and Deming, N. Mex., and all stations on its lines in Arizona. The El Paso and Southwestern Road has made a reduction of about 30 per cent in its rates between El Paso and Arizona stations. The Atchison, Topeka and Santa Fe roads have given assurances that marked reductions will be made between Los Angeles and its Arizona stations, and between Albuquerque, N. Mex., and its Arizona stations. Substantial reductions of commodity rates have resulted from the reductions referred to above between the same points.

The commission has also secured the establishment of uniform rates on coke from Colorado ovens to points east of Benson on the Southern Pacific Railroad. It has also secured reductions in rates on carload lots of material removed from Yuma to Florence for use on the new territorial penitentiary at that place.

An adjustment was secured by the commission of alleged unfair discrimination made by the El Paso and Southwestern Company in favor of El Paso in the matter of rates on shipments of fruit to Bisbee, the railway company having agreed to remedy the cause of the discrimination. Other adjustments were secured on complaints of various shippers at Safford and Florence.

Formal complaints have been instituted against the Wells, Fargo Company to secure a reduction of express rates from eastern and western points to Phoenix for race horses participating in the exhibitions at the annual fair; also, to obtain a reduction in express rates, so as to make such rates throughout the Territory conform to those to and from Phoenix, Tempe, and Mesa as established on the order made by the Interstate Commerce Commission.

A complaint has been prepared for presentation before the Interstate Commerce Commission to secure a reduction of rates on flour and meal from Santa Fe stations in Colorado to Clifton.

On June 6, 1910, the Interstate Commerce Commission rendered a favorable decision in the case of the Maricopa County Commercial Club against the Santa Fe, Prescott and Phoenix Railway Company et al., affecting class rates from points in eastern defined territories to Phoenix. The decision will become effective on December 1, 1910. By its terms it applies only to Phoenix, yet the principle

decided will apply to all points in the Territory, so that it is the expectation of the commission that the railways affected will adjust class rates from Chicago, St. Louis, and Kansas City to all shipping points within the Territory so as to conform to the ruling of the Interstate Commerce Commission.

In connection with the work of the railway commission it may be of interest to note that the total railroad mileage within the Territory is 2,041.02 miles. There were constructed in the Territory during the year 215.153 miles, not including spurs, switches, and private lines.

MINING.

The output of the mines of the Territory for the year 1909, as shown by the verified statements filed with the territorial auditor, exceeded somewhat that of the year 1908. This output was as follows:

Copper.....	pounds..	297, 702, 940
Gold.....	ounces..	132, 278. 849
Silver.....	do....	2, 347, 709. 315
Lead.....	pounds..	2, 153, 102
Zinc.....	do....	6, 053, 145

The gross value of this product was \$42,946,745.19. It will thus be seen that Arizona still leads all the States and Territories in the production of copper.

The principal copper-producing mines for the year were the same as those for 1908, and but little change occurred in the relative output of each. A great deal of exploration work was done during the year at Miami, near Globe, and an enormous tonnage of low-grade ores of commercial value has been exposed in this field. The Miami Copper Company has completed the first two units of its mill of 1,000 tons each and is at work on the third. At Ray the work of exploring the ore bodies by means of churn drills has proceeded with satisfactory results. At Kelvin a 5,000-ton concentrator was begun and is being rapidly constructed. It is expected that this plant will be in operation early in the year 1911. At Swansea, in Yuma County, the Clara Consolidated Mining Company has completed its smelter and is about ready to begin producing. At Humboldt, in Yavapai County, after a closing down of more than two years, smelting operations have been resumed. At Tombstone the work of unwatering the flooded workings has been successfully prosecuted. In Mohave County the Gold Roads mine and the Tom Reed mine have completed their milling plants and have greatly increased their production. Both properties promise to be among the great gold mines of the country.

Although the year has been one of comparatively little activity in the matter of prospecting, and in the search for new ore bodies, satisfactory results have, for the most part, followed such work as has been done. While prospecting for copper will be inactive probably until stimulated by a higher price for copper, there is every indication of a renewed activity in gold mining. There has recently been opened up near Bowie, in Cochise County, marble quarries said to be the equal of any in the world in the extent of the deposits and quality of the marble. Some shipment of this marble has been begun and the industry promises to be an important one.

VITAL STATISTICS.

Registration of vital statistics, under an act passed by the twenty-fifth legislature, was begun on July 1, 1909, and has been carried on successfully in almost every county in the Territory, resulting in a registration of nearly 90 per cent of the deaths and a somewhat lower per cent of the births in the Territory.

Research has been made into various causes of diseases and epidemics with a view of improving sanitary conditions and the public health, and a comprehensive system of reports compiled by the board of health has been inaugurated which will add much to the efficiency of the system.

The statistics at hand show the total number of births during the past fiscal year to be 3,068, while the total number of deaths during the same period was 3,049, as shown by the following tables:

Table of births.

	Apache.	Cochise.	Cocouino.	Gila.	Graham.	Maricopa.	Mohave.	Navajo.	Pima.	Pinal.	Santa Cruz.	Yavapai.	Yuma.	Males.	Females.	Unstated.	Total.
Native white.....	54	390	31	164	93	413	26	113	123	47	21	133	53	870	779	12	1,681
Native Mexican.....	30	35	12	17	30	108	10	22	59	46	7	16	44	236	198	2	436
Foreign white.....	2	160	11	47	32	21	5	5	13	2	1	40	7	194	162		346
Foreign Mexican.....	1	113	8	22	123	63	4	7	63	22	8	30	14	266	208	4	478
Indian.....	9		1	23		2		182	3				1	114	107		221
Negro.....		4		3		6			5			3		12	9		21
Chinese.....			1						2					2	1		3
Males.....	55	273	40	136	157	323	20	173	148	65	18	126	56	1,604			
Females.....	40	326	23	136	117	285	24	156	120	51	19	96	61		1,454		
Unstated.....	1	3	1	2	4	6	1			1						18	
1909.																	
July.....	6	48	1	23	22	45	2	13	27	6	2	27	3				225
August.....	10	60	6	28	34	60	1	20	8	13	4	19	10				273
September.....	9	55	2	18	32	61	5	20	20	14	2	17	14				267
October.....	5	82	3	21	23	45	3	33	19	10	5	21	14				284
November.....	9	56	4	16	29	56		23	27	8	3	21	14				256
December.....	3	61	11	31	31	50	4	28	33	7	4	27	8				298
1910.																	
January.....	7	61	4	22	35	49	4	34	18	14		18	14				280
February.....	5	50	2	24	38	43	1	40	19	12	6	12	11				263
March.....	7	57	6	22	34	85	10	37	32	5	3	9	11				318
April.....	12	50	4	23		40	5	23	23	9	3	20	5				217
May.....	15	67	8	21		45	3	34	19	11	3	11	6				247
June.....	8	54	13	24		34	9	29	28	8	2	20	9				233
Total.....	96	702	64	276	278	613	46	329	268	117	37	232	119				3,166
Stillbirths.....	4	26	1	9	8	9	2	9	15	1	2	6	6				96
Total live births.....	92	676	63	267	270	604	43	320	253	116	35	216	113				3,068
Twin births.....	2	11	1	1	2	3	1	1	1			4	1				28

a Triplets.

Table of deaths.
 (Stillbirths excluded.)

Classification.	Apache.	Cochise.	Cocconino.	Gila.	Graham.	Maricopa.	Mohave.	Navajo.	Pima.	Pinal.	Santa Cruz.	Yavapai.	Yuma.
Typhoid fever.....	1	19	1	11	10	23	2	.....	4	2	.....	1	6
Malarial fever.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Smallpox.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Measles.....	1	3	.....	3	.....	14	.....	.....	3	3	.....	.....	.....
Scarlet fever.....	1	4	.....	.....	.....	1	.....	.....	2	.....	.....	.....	.....
Whooping cough.....	11	1	32	31	12	6	.....	36	19	2	.....	.....	.....
Diphtheria and croup.....	.....	1	3	3	9	5	.....	1	3	1	.....	.....	.....
Influenza.....	1	2	.....	2	.....	4	.....	4	3	.....	.....	.....	.....
Other epidemic diseases.....	1	5	.....	.....	4	5	1	1	5	1	.....	.....	.....
Tuberculosis pulmonalis.....	.....	32	8	7	.....	254	2	2	97	8	.....	23	19
Tuberculosis acquired in Arizona.....	3	22	2	25	11	37	3	13	47	6	.....	10	19
Tubercular meningitis.....	.....	2	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	3
Tubercular meningitis acquired in Arizona.....	.....	2	.....	.....	.....	3	.....	.....	3	1	.....	.....	.....
Other forms of tuberculosis.....	1	4	.....	.....	1	3	.....	.....	4	.....	.....	.....	.....
Other forms of tuberculosis acquired in Arizona.....	1	3	.....	.....	1	1	.....	1	.....	.....	.....	.....	.....
Syphilis.....	.....	2	1	1	1	4	.....	.....	.....	.....	.....	2	.....
Cancer, malignant tumor.....	.....	9	.....	2	3	15	.....	1	12	.....	5	5	.....
Simple meningitis.....	1	11	.....	4	2	14	.....	.....	5	2	.....	1	2
Cerebra hemorrhage and softening.....	2	6	.....	4	.....	7	.....	.....	7	3	2	7	4
Organic heart disease.....	2	23	3	7	5	30	1	4	19	1	4	16	5
Acute bronchitis.....	.....	5	.....	2	1	.....	.....	.....	7	.....	.....	.....	.....
Chronic bronchitis.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....	.....	.....	.....
Pneumonia (excluding broncho-pneumonia).....	2	48	6	30	19	49	2	3	22	10	9	8	4
Broncho-pneumonia.....	2	3	.....	2	7	11	.....	.....	22	.....	4	3	.....
Other diseases of the circulatory system.....	.....	3	.....	.....	.....	3	.....	.....	3	.....	.....	1	1
Diseases of the stomach (cancer excepted).....	.....	1	.....	.....	3	5	.....	.....	5	1	.....	2	.....
Diarrheal diseases (under 2 years).....	3	55	7	13	45	44	.....	13	63	10	4	5	13
Appendicitis.....	.....	.....	.....	.....	.....	2	.....	.....	3	.....	.....	.....	.....
Hernia, intestinal obstruction.....	1	6	.....	.....	1	6	.....	.....	3	1	.....	1	1
Cirrhosis of liver.....	.....	2	.....	2	.....	7	.....	.....	2	.....	1	.....	.....
Bright's disease and nephritis.....	1	25	.....	4	7	36	1	1	3	.....	8	12	3
Diseases of women (not cancer).....	1	2	1	.....	.....	2	.....	.....	6	.....	.....	.....	.....
Puerperal septicemia.....	.....	5	2	2	1	2	.....	4	7	1	1	1	.....
Other puerperal accidents.....	1	5	.....	2	1	2	.....	.....	4	.....	1	2	1
Congenital debility and malformation.....	1	48	5	9	9	28	3	10	19	8	4	12	3
Old age.....	.....	6	1	1	5	18	1	4	6	3	.....	.....	1
Accidental gunshot wounds.....	.....	7	.....	.....	.....	1	.....	1	3	2	1	2	.....
Injuries by machinery.....	.....	1	.....	.....	1	1	.....	.....	.....	.....	.....	1	.....
Mines and quarries.....	.....	21	.....	10	4	1	3	.....	6	.....	.....	7	.....
Railroad accidents and injuries.....	.....	8	2	4	1	5	.....	3	7	8	.....	7	1
Injuries by horses and vehicles.....	.....	1	.....	2	1	1	.....	1	1	1	1	2	1
Other accidental injuries.....	.....	9	.....	2	10	.....	.....	.....	3	.....	3	4	.....
Suicide.....	.....	9	.....	6	2	10	.....	1	6	.....	.....	7	1
Homicide.....	.....	9	1	4	2	1	.....	1	4	4	3	5	1
Other external causes.....	1	14	.....	8	7	18	1	4	3	1	.....	2	5
All other causes.....	2	50	6	18	17	61	2	11	63	9	5	20	16
Ill-defined causes.....	10	20	6	13	16	22	1	69	14	2	1	16	7
Males.....	27	314	34	151	122	509	18	98	322	59	48	147	90
Females.....	28	201	22	84	103	256	5	87	206	34	24	50	20
White.....	14	308	38	130	52	522	20	33	196	37	28	149	60
Mexican.....	11	201	13	46	168	213	2	16	274	62	40	36	48
Indian.....	25	1	4	50	6	6	1	129	45	3	1	1	1
Other.....	.....	5	1	9	5	24	.....	2	13	1	3	11	1
Under 1 year.....	13	146	10	47	60	103	3	48	109	19	13	21	19
1 to 4 years.....	12	49	9	27	49	69	1	41	91	11	8	14	13
5 to 14 years.....	6	16	.....	19	17	22	1	21	19	3	5	4	2
15 to 24 years.....	5	40	8	23	20	80	1	12	59	13	5	13	5
25 to 34 years.....	1	69	10	33	23	140	4	12	85	13	9	36	16
35 to 44 years.....	3	62	8	32	19	128	4	16	60	9	10	20	14
45 to 54 years.....	3	50	3	15	8	70	1	8	32	8	8	22	15
55 to 64 years.....	2	36	5	15	11	54	5	6	30	7	5	24	8
65 years and over.....	5	44	3	23	14	96	3	16	39	9	7	33	16
Unstated.....	.....	3	.....	1	4	3	.....	.....	4	1	2	1	3
Total.....	50	515	56	235	225	765	28	180	528	93	72	197	110

FINANCIAL CONDITION OF THE TERRITORY.

RECEIPTS AND DISBURSEMENTS.

The Territory is in better financial condition than ever before in its history. Territorial, county, and municipal bonds are selling at a high premium and are largely sought by investors. At the close of the fiscal year the cash on hand in the territorial treasury to the credit of the various funds amounted to \$507,721.97, an increase over the previous year of \$145,277.74.

The total revenues for the year were \$1,121,381.48, an increase of \$205,891.28 over the previous year.

The actual revenue received from taxes and other sources, the items of which were considered in estimating required revenue to cover appropriations authorized by law, was made up as follows:

Revenue of Territory from taxes and other sources.

Territorial taxes, 80-cent levy.....	\$657, 809.52
Territorial road taxes.....	138, 059.23
Tax to cover interest on county and city funded debt.....	115, 854.83
Pinal County (Florence bridge).....	5, 000.00
Incorporation fees.....	42, 701.30
Bank interest, territorial deposits.....	4, 286.30
Tax on telephone companies.....	2, 638.47
Tax on telegraph companies.....	385.22
Tax on express companies.....	715.52
Railroad liquor license tax.....	1, 200.00
Capitol building rent account.....	2, 860.10
Asylum for the insane, earnings.....	1, 534.30
Territorial prison earnings.....	11, 238.34
Miscellaneous small items not considered in estimating required revenue.....	2, 589.82
Total.....	986, 872.96

The increase in revenue was largely due to a substantial advance in the assessed valuation of the taxable property of the Territory, added to which were increases derived from special sources and not taken into account in making estimates of required revenue, as follows:

Revenue from special sources.

Agricultural college fund provided by United States Government.....	\$40, 000.00
Insurance taxes and fees received from territorial secretary.....	36, 496.19
License and inspection fees received from live-stock sanitary board and used by board in its administration of the live-stock interests of Arizona.....	19, 247.36
National forest, school, and road fund received from United States Government for distribution to counties in which forest reserves are located from which revenues were received.....	38, 313.45
University land rentals included in statement of revenue received from Coconino County.....	451.53
Total revenues from special sources.....	134, 508.53

The total expenditures for the year were \$976,103.74, which include all expenditures from special items of income shown in the above table. The net decrease over the previous year including these items was \$13,266.74, while the decrease in expenditure for all purposes for which actual revenue was provided was \$103,123.16.

This decrease is largely due to the more economical management of territorial institutions as a result of improvements made within the

past few years in buildings and equipment, as well as to the fact that expenditures for new improvements have not been necessary.

The following itemized statement, taken from the territorial treasurer's report, shows the receipts and disbursements for the past fiscal year:

Receipts and disbursements for the year ended June 30, 1910.

Fund.	Receipts.	Disbursements.
Agricultural college.....	\$40,000.00	\$35,000.00
Asylum for insane.....	57,448.10	57,530.67
Asylum for insane, improvement.....	5,508.21	24,781.13
Asylum for insane, interest.....	1,088.95	1,025.00
Capitol building.....	1,510.10	1,954.86
Capitol, interest.....	5,755.82	7,500.00
Florence bridge.....	16,016.45	16,016.45
General.....	250,036.68	219,368.37
Interest.....	156,967.94	164,668.26
Industrial school.....	22,425.90	20,701.11
Industrial school, improvement.....		313.90
License and inspection.....	19,247.36	15,041.70
Northern Arizona Normal School.....	18,098.43	20,027.60
Northern Arizona Normal Dormitory.....	11,016.45	9.90
Northern Arizona normal, improvement.....		1,016.45
National forest school and road.....	38,313.45	38,313.45
Pioneers' Home building.....	25,180.45	973.95
Prison building.....	91,075.00	76,641.95
Prison.....	70,441.19	63,257.18
Ranger.....		22,252.38
Redemption World's Fair bonds.....	6,578.10	
Redemption fund, six per cent bonds.....	13,979.45	15,000.00
Tempe Normal School.....	40,000.00	47,432.12
Tempe Normal School building.....	9,500.00	15,777.71
Territorial School.....	61,494.69	65,943.76
Territorial road.....	153,056.23	36,342.95
University.....	35,951.53	36,266.62
University building.....	11,803.45	10,852.42
University, interest (par. 3663-1901).....	1,315.62	1,250.00
University, interest (act 47, 1903).....	575.61	550.00
Deduct for transfers.....	1,164,367.06	1,015,809.89
	44,445.58	44,445.58
Total.....	1,119,921.48	971,364.31

The territorial treasurer is authorized by law to deposit public funds in the banks of the Territory, the bank in each case being required to furnish bonds to insure the Territory against loss.

During the last fiscal year the average amount of territorial funds on deposit was \$441,279, on which the banks were required to pay interest to the amount of \$4,286.30. At the close of the year the funds on deposit were as follows:

Territorial funds on deposit June 30, 1910.

The Bank of Arizona.....	\$140,000.00
The Phoenix National Bank.....	24,644.50
The National Bank of Arizona, Phoenix.....	5,384.22
The Prescott National Bank.....	40,000.00
The Bank of Bisbee.....	76,000.00
The Valley Bank, Phoenix.....	58,332.57
First National Bank of Clifton.....	10,000.00
Southern Arizona Bank and Trust Company, Tucson.....	10,000.00
First National Bank of Globe.....	20,000.00
Consolidated National Bank, Tucson.....	23,000.00
Navajo-Apache Bank and Trust Company, Winslow.....	13,000.00
Mesa City Bank.....	5,000.00
The Bank of Benson.....	1,807.50
Guaranty Trust Company of New York.....	68,093.26
The Bank of Douglas.....	10,000.00
The Bank of Safford.....	20,000.00
Total.....	525,262.05

TERRITORIAL DEBT.

During the past year the territorial bonded indebtedness was reduced \$43,000. Of this amount \$41,000 was paid by the Territory and \$2,000 by the city of Tombstone. The bonds retired were a part of the 6 per cent territorial funding bonds maturing in the year 1913. There is still outstanding of this issue \$10,000, but provision will be made in the tax levy for a further retirement of \$5,000 of these bonds during the current fiscal year.

In 1909 the tax levy provided for the retirement of \$13,000 of these bonds, but the revenue received from the levy made permitted a retirement of \$15,000. In addition to this amount, by applying the surplus funds in the territorial bond-interest fund, the territorial treasurer was able to provide for the retirement early in January, 1910, of \$26,000 of these bonds. This expenditure of \$26,000 from the territorial bond-interest fund could in no manner create a deficit through the subsequent payment of territorial interest obligations, and the Territory thus effected a saving in interest of \$3,210 by the transaction.

The city of Tombstone purchased \$2,000 of funding bonds and sent them to the territorial treasurer for cancellation and credit on its territorial funded indebtedness.

All counties and cities have paid the interest accruing on their funded debt during the year as fast as it became due, and in addition Pima County paid its second installment of \$17,505.15 past due bond interest.

In addition to the bonds redeemed during the year there has accumulated \$18,970.99 for the redemption of bonds as shown by the following statements:

Redemption fund, 6 per cent bonds, June 30, 1910.

Balance July 1, 1909.....	\$1,221.32	
Receipts from counties.....	13,978.45	
Disbursements.....		\$15,000.00
Balance June 30, 1910.....		199.77
	15,199.77	15,199.77

Redemption fund World's Fair bonds, June 30, 1910.

Balance July 1, 1909.....	\$12,193.12	
Receipts from counties.....	6,578.10	
Balance June 30, 1910.....		\$18,771.22
	18,771.22	18,771.22

Itemized statement of bonded indebtedness of Territory, by issues, June 30, 1910.

Bond issue.	Cause of bond issue.	Time.	Interest.	Amount.
		Years.	Per cent.	
Jan. 15, 1888	Territorial indebtedness.....	25	6	\$10,000.00
July 1, 1892	Territorial exhibit at World's Fair.....	20	6	30,000.00
July 15, 1892	Territorial, county, and city indebtedness.....	50	5	2,000,000.00
Jan. 15, 1896	Territorial and county indebtedness.....	50	5	300,000.00
June 1, 1898	Construction, capitol building.....	50	6	100,000.00
Jan. 2, 1902	Improvements, University of Arizona.....	20	5	20,000.00
Jan. 1, 1903	Territorial exhibit, Louisiana Purchase Exposition.....	20	5	92,000.00
Jan. 15, 1903	Territorial and county indebtedness.....	50	5	30,000.00
Jan. 15, 1903	Indebtedness, Pima County railroad bonds.....	50	3	318,275.29
Jan. 1, 1904	Improvements, asylum for the insane.....	50	5	20,000.00
July 15, 1904	Territorial and county indebtedness.....	50	5	94,000.00
Mar. 1, 1905	Expense, university experiment station.....	20	5	11,000.00
Jan. 15, 1906	Indebtedness, Pima County.....	50	4	25,000.00
	Total debt.....			3,055,275.29
	City and county indebtedness, funded.....			2,098,302.88
	Actual territorial debt after deducting city and county funded debt.....			956,972.41

RECAPITULATION.

City and county indebtedness, funded.....		\$2,098,302.86
Territorial debt, funded.....	\$740,972.43	
World's Fair.....	30,000.00	
Construction, capitol building.....	100,000.00	
Improvements, University of Arizona.....	25,000.00	
Louisiana Purchase Exposition.....	30,000.00	
Improvements, asylum for the insane.....	20,000.00	
University experiment station.....	11,000.00	
Territorial indebtedness.....		956,972.43
Total debt.....		3,055,275.29

Bonded city, county, and territorial debt, segregated June 30, 1910.

Apache County.....	\$43,473.50	Tucson city.....	\$27,423.71
Coconino County.....	159,000.99	Tombstone city.....	11,812.88
Graham County.....	147,364.70	Navajo County.....	38,000.00
Gila County.....	44,781.36	Santa Cruz County.....	31,000.00
Maricopa County.....	281,646.43		
Mohave County.....	105,363.29	Total city and county	
Pima County.....	553,515.34	indebtedness.....	2,098,302.86
Pinal County.....	136,138.08	Territorial indebtedness...	956,972.43
Yavapai County.....	338,740.07		
Yuma County.....	88,791.11	Total debt.....	3,055,275.29
Prescott city.....	91,261.90		

Tax levies of counties and cities to cover interest on their respective funded debts.

	Interest.	Rate.
Apache County.....	\$2,173.68	\$0.16
Coconino County.....	7,950.06	.21
Gila County.....	2,239.66	.04
Graham County.....	7,368.24	.09
Maricopa County.....	14,081.82	.09
Mohave County.....	5,288.16	.30
Navajo County.....	1,900.00	.11
Pima County.....	21,060.26	.30
Pima County (previous years).....	17,506.13	.23
Pinal County.....	6,806.90	.26
Santa Cruz County.....	1,550.00	.06
Yavapai County.....	16,937.00	.18
Yuma County.....	4,439.56	.13
Prescott city.....	4,563.10	.20
Tombstone city.....	590.62	.26
Tucson city.....	1,371.20	.04

BANKS.

The year just ended has been one of unusual prosperity to the banks of the Territory. Despite the more or less unsatisfactory business conditions in some parts of the Territory, the banks, especially the larger institutions, nearly all show substantial growth. There were no failures recorded during the year, though some of the smaller institutions are not in a very satisfactory condition.

The following small banks voluntarily closed their business:

Miners and Merchants Bank, branch, Lowell.
 Bank of Bisbee, branch, Lowell.
 Bank of Bisbee, branch, Naco.
 Farmers and Merchants Bank, Yuma.
 Cooke & Co., Globe.
 Bank of Gleeson, Gleeson.

Eight new banks were established in the Territory, besides three branch banks, as follows:

	Paid-up capital.
Parker Bank and Trust Company, Parker.....	\$10, 600
Commercial Bank of Parker, Parker.....	10, 000
Merchants and Stock Growers Bank, Holbrook.....	25, 000
Bank of Lowell, Lowell.....	25, 000
Cooke & Co., Globe.....	25, 000
Bank of Miami, Miami.....	15, 000
Citizens Bank, Thatcher.....	12, 000
Bank of Gleeson, Gleeson.....	5, 000

The Gila Valley Bank and Trust Company, of Morenci, established branch banks at Miami, Winkelman, and Ray.

The Navajo County Bank at Winslow, the Navajo County Bank branch at Holbrook, and the Apache County Bank and Trust Company at St. Johns were consolidated and reorganized under the name of the Navajo-Apache Bank and Trust Company, with the main bank established at Winslow and branch banks at Holbrook and St. Johns.

The Bank of Kelvin, with a branch at Ray, was reorganized under the name of the Ray State Bank, with the main bank at Ray and a branch at Kelvin.

The following-named banks show increases in paid-up capital stock during the past year:

Union Bank and Trust Company, Phoenix.....	\$25, 000 to \$50, 000
Merchants and Stock Growers Bank, Holbrook.....	25, 000 to 50, 000
Willcox Bank and Trust Company, Willcox.....	15, 000 to 23, 500

At the close of the fiscal year there were the following number of financial institutions operating in the Territory:

Territorial banks.....	37
Territorial banks, branches.....	13
National banks.....	13
Building and loan associations.....	7
	70

Condensed statement of condition of financial institutions.

Aggregate capital of territorial banks on June 30, 1910.....	\$1, 369, 380. 00
Aggregate surplus and undivided profits on June 30, 1910.....	995, 155. 35
Increase in aggregate resources of the territorial banks during the year.....	1, 546, 946. 89
Increase in aggregate resources of national banks.....	761, 733. 82
Total increase.....	2, 308, 680. 71
Increase in deposits of—	
Territorial banks.....	1, 418, 429. 29
National banks.....	609, 670. 63
Total increase in deposits.....	2, 028, 099. 92
Aggregate resources of all banking institutions in Arizona for the fiscal year ended June 30, 1910:	
Territorial banks.....	13, 844, 739. 98
National banks.....	10, 148, 009. 37
Total bank resources.....	23, 992, 749. 35
Building and loan associations.....	925, 545. 71
Total resources.....	24, 918, 295. 06

The following abstracts of reports of the condition of territorial and national banks and building and loan associations for the years 1909 and 1910 give a comprehensive idea of the increase in the financial condition of the Territory:

Abstract of reports of the condition of territorial banks of Arizona.

	June 23, 1909 (33 banks).	June 30, 1910 (37 banks).
RESOURCES.		
Loans, discounts, and overdrafts.....	\$6,322,607.79	\$7,790,395.26
Bonds, stocks, and other securities.....	1,050,122.28	1,172,949.52
Real estate, furniture, and fixtures.....	650,273.69	786,285.20
Expense account.....	153,530.40	104,691.58
Cash and due from banks.....	4,121,222.93	4,040,218.52
Total.....	12,297,847.09	13,844,793.98
LIABILITIES.		
Capital stock.....	1,213,450.00	1,369,380.00
Surplus.....	561,886.92	589,364.32
Undivided profits.....	399,084.91	405,791.08
Deposits and due banks.....	9,985,775.20	11,404,204.49
Rediscouts and other liabilities.....	137,650.06	76,000.14
Total.....	12,297,847.09	13,844,793.98

Abstract of reports of the condition of national banks of Arizona.

	June 23, 1909 (13 banks).	June 30, 1910 (13 banks).
RESOURCES.		
Loans, discounts, and overdrafts.....	\$3,991,826.81	\$4,924,799.84
United States bonds.....	1,020,539.37	980,657.75
Securities, etc.....	630,859.21	616,127.99
Real estate, furniture, and fixtures.....	304,741.61	334,912.23
Cash and due banks.....	3,432,308.55	3,291,511.77
Total.....	9,386,275.55	10,148,009.37
LIABILITIES.		
Capital stock.....	930,000.00	980,000.00
Surplus and undivided profits.....	796,750.77	884,732.52
Circulation.....	602,960.00	703,560.00
Deposits and due banks.....	6,963,735.33	7,573,405.96
Bills payable and other liabilities.....	2,829.45	6,310.89
Total.....	9,386,275.55	10,148,009.37

Comparative condensed statement of the reports of the condition of the building and loan associations of Arizona.

	June 23, 1909 (7 associations).	June 30, 1910 (7 associations).
RESOURCES.		
Loans on real estate.....	\$726,205.78	\$828,431.14
Loans on stock.....	18,774.42	16,923.50
Real estate.....	29,575.62	28,209.43
Sundry accounts.....	22,177.91	24,788.96
Cash on hand.....	50,618.48	27,192.68
Total.....	847,362.21	925,545.71
LIABILITIES.		
Capital stock.....	653,612.04	772,599.08
Undivided profits.....	33,450.15	28,691.58
Sundry accounts.....	5,019.54	119,112.06
Bills payable.....	155,270.48	5,143.00
Total.....	847,362.21	925,545.71

INSURANCE DEPARTMENT.

The secretary of the Territory, in his report to this office, states that there are at present 112 insurance companies authorized to transact business in the Territory, of which there are 67 fire insurance companies, 22 life insurance companies, 16 miscellaneous insurance companies, and 7 underwriting agencies. This shows a gain of 6 companies during the fiscal year, of which there were 4 fire, 1 life, and 1 underwriting companies.

The premium receipts collected by the various companies doing business in the Territory during the year ended December 31, 1909, aggregated \$1,701,872.07, a gain of \$160,050.35 over the previous year.

In compliance with the insurance laws of the Territory, a tax of 2 per cent was levied on this amount by the secretary. This tax amounted to \$34,037.32, which was \$3,200.98 in excess of the amount collected during the previous year. This amount was covered into the territorial treasury and placed to the credit of the school fund.

In addition to the insurance companies, there are 13 surety and bonding companies entered in the Territory. The law requires that all companies of this nature must file with the governor quarterly financial statements showing their assets and liabilities. On account of the unsatisfactory showing of its statement, the license of the Globe Surety and Bonding Company was revoked in May, 1910, but all other statements disclose a satisfactory financial standing and profitable business.

INCORPORATIONS.

For the year ended June 30, 1910, the fees received by the Territory through the office of the territorial auditor from organizers of corporations amounted to \$42,772.30, as against \$41,307.90 for the previous year, as shown by the following statement:

Statement of the incorporation fees received by the territorial auditor during the fiscal year ended June 30, 1910.

1909.	
July.....	\$3, 207. 60
August.....	3, 253. 10
September.....	2, 983. 40
October.....	3, 239. 40
November.....	3, 333. 00
December.....	3, 169. 40
1910.	
January.....	3, 538. 00
February.....	3, 487. 20
March.....	4, 178. 40
April.....	4, 592. 00
May.....	3, 949. 00
June.....	3, 841. 80
Total.....	42, 772. 30

TAXATION.

The assessed valuation of taxable property of the Territory for the year 1910 shows an increase over the previous year of \$3,442,163.79. This very satisfactory condition made it possible for the board of equalization to lower the tax rate from 80 to 70 cents on each \$100 of assessed values.

While there has been but a comparatively small increase in the assessed valuation of mining property, due principally to the uncertainty of the metal market, all other classes of property show a marked increase, and especially irrigable land and real estate.

Of the increase of \$3,442,162.79 for the whole Territory, the assessed valuation of property in Maricopa County shows the greatest gain, being \$1,769,226.33, due to the additional acreage of land brought into cultivation, as well as to a substantial increase in value of all classes of property.

The rate of taxation in the several counties for local purposes—county government, county improvements, schools and roads, and interest on that portion of the public debt which is of local origin—continues in most cases to decrease, the increase in the rate, wherever an increase is shown, being due in part to the levy for the building of a system of territorial highways and to various public improvements.

The following is a comparative statement of the rates of taxation in the several counties during the past five years:

Rate of taxation, 1906-1910.

County.	Total tax per \$100.				
	1906.	1907.	1908.	1909.	1910.
Apache.....	\$3.75	\$3.70	\$3.10	\$3.80	\$3.80
Cochise.....	2.65	2.00	2.00	2.30	2.75
Cocconino.....	2.80	2.75	2.75	3.25	3.25
Gila.....	3.22	3.50	2.84	3.30	3.00
Graham.....	2.50	2.00	2.00	3.15	3.05
Maricopa.....	2.10	2.15	2.16	3.02	2.55
Mohave.....	4.00	3.80	3.75	4.00	3.75
Navajo.....	3.50	3.30	3.30	3.20	2.95
Pima.....	2.85	2.80	3.05	3.50	3.40
Pinal.....	3.50	3.50	3.00	4.10	3.00
Santa Cruz.....	3.70	3.80	3.80	3.85	3.20
Yavapai.....	3.00	2.50	2.30	2.40	2.30
Yuma.....	3.50	3.60	3.40	3.45	3.51

Tax levy for the year 1910 on each \$100.

Asylum for the insane fund (chap. 106, sec. 1, laws 1909).....	\$0.0700
Asylum for the insane improvement fund (chap. 107, sec. 4, laws 1909).....	.0070
Asylum for the insane interest fund (act 73, laws 1903).....	.0012
Capitol interest fund (act 9, laws 1897).....	.0060
General fund (par. 3831, R. S. Arizona 1901).....	.2775
Interest fund (par. 2047, organic law of Arizona).....	.0440
Northern Arizona Normal School fund (chap. 106, sec. 5, laws 1909).....	.0230
Prison fund (chap. 106, sec. 3, laws 1909).....	.0730
Sinking fund, redemption World's Fair bonds (act 103, laws 1891).....	.0072
Six per cent funding bond redemption fund (chap. 100, sec. 14, laws 1907)...	.0060
St. Louis Exposition bond interest fund (act 86, laws 1901).....	.0018
Tempe Normal School fund (chap. 106, sec. 4, laws 1909).....	.0500
Tempe Normal School building fund (chap. 107, sec. 15, laws 1909).....	.0130
Territorial Industrial School fund (chap. 106, sec. 2, laws 1909).....	.0280
Territorial school fund (chap. 67, sec. 6, laws 1907).....	.0300
University fund (chap. 106, sec. 6, laws 1909).....	.0440
University building fund (chap. 107, sec. 16, laws 1909).....	.0150
University interest fund (par. 3663, R. S. 1901).....	.0015
World's Fair bond interest fund (act 103, laws 1891).....	.0018

Total territorial tax levy..... .7000

Total valuation, by counties, for the year 1910.

Apache.....	\$1,481,309.94
Cochise.....	19,323,763.03
Cocconino.....	3,929,228.85
Gila.....	6,498,520.33
Graham.....	8,489,610.34
Maricopa.....	17,779,942.99
Mohave.....	1,982,275.29
Navajo.....	1,938,850.61
Pima.....	8,058,330.33
Pinal.....	2,702,111.71
Santa Cruz.....	2,271,294.54
Yavapai.....	9,719,993.88
Yuma.....	3,738,139.66

Total valuation.....	\$7,913,371.50
Less exemption.....	1,787,145.15

Total subject to taxation.....	86,126,226.35
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Comparative statement of total tax rolls for the years 1907-1910.

County.	1907.	1908.	1909.	1910.
Apache.....	\$1,070,827.91	\$1,085,918.55	\$1,398,035.91	\$1,481,309.94
Cochise.....	20,739,715.55	20,128,808.97	19,263,032.72	19,323,763.03
Cocconino.....	3,808,059.09	4,302,299.43	4,463,174.99	3,929,228.85
Gila.....	4,797,387.28	5,571,501.01	5,721,392.74	6,498,520.33
Graham.....	7,570,943.12	8,199,123.03	8,182,337.97	8,489,610.34
Maricopa.....	13,414,572.40	14,264,755.53	16,010,716.66	17,779,942.99
Mohave.....	1,641,181.84	1,619,098.11	1,661,246.22	1,982,275.29
Navajo.....	1,716,726.06	1,844,872.68	1,467,979.97	1,938,850.61
Pima.....	6,916,973.48	7,230,446.02	7,737,374.02	8,058,330.33
Pinal.....	2,096,978.01	2,479,415.87	2,491,760.91	2,702,111.71
Santa Cruz.....	1,641,414.34	1,731,305.05	2,197,934.33	2,271,294.54
Yavapai.....	9,722,186.77	10,244,987.80	9,639,088.91	9,719,993.88
Yuma.....	2,664,053.26	2,639,072.09	3,512,328.87	3,738,139.66
Total valuation.....	77,706,251.11	81,342,203.59	83,746,403.96	87,913,371.50
Less exemption.....	333,096.00	704,662.10	1,062,341.40	1,787,145.15
Total value for assessment.....	77,373,155.11	80,637,541.49	82,684,062.56	86,126,226.35

Aggregate valuation of each class of property in the Territory for the year 1910.

Description of property.	Quantity.	Valuation.
Cultivated lands.....	24,125.75	\$324,207.96
Cultivated land, irrigated.....	186,376.65	7,330,666.26
Uncultivated land.....	1,102,204.94	4,016,452.47
Railroad land grants.....	2,317,624.93	637,579.28
Other land grants.....	211,430.20	326,233.96
Productive patented mines.....	1,538.3	10,735,096.43
Improvements on productive patented mines.....		1,758,769.00
Nonproductive patented mines (3,971.33).....		2,556,287.33
Improvements on nonproductive patented mines.....		1,314,867.40
Patented mill sites.....	93	28,671.00
Improvements on patented mill sites.....		4,900.00
Productive unpatented mines and mining claims (included in productive mines).....		
Improvements on productive unpatented mines and mining claims.....		99,180.00
Improvements on nonproductive unpatented mines and mining claims.....		464,640.00
Smelters (not included in improvements on mines and mining claims as classified above).....		2,756,291.00
Town and city lots.....		11,001,094.55
Improvements.....		11,942,032.75
Banks.....	64	2,012,511.06
Horses:		
Range.....	17,775	196,494.00
Work.....	15,701	604,182.00
Saddle.....	11,171	260,236.50
Stallions.....	199	20,160.00
Mules.....	2,300	97,223.00
Asses.....	2,210	13,696.00
Cattle:		
Range and stock.....	412,250	4,166,968.00
Beef.....	1,818	36,615.00
Milch cows.....	12,303	306,284.00
Bulls.....	3,183	82,320.00

Aggregate of valuation of each class of property in the Territory for the year 1910—Cont'd.

Description of property.	Quantity.	Valuation.
Sheep.....	591,576	\$1,251,878.00
Goats.....	80,765	153,101.50
Swine.....	3,746	12,552.00
Bucks.....	740	5,700.00
Calves.....	3,973	19,885.00
Ostriches.....	4,019	216,845.00
Railroads:		
Main line.....miles..	1,082.31	10,716,630.20
Main line (estimated).....do	386.76	2,507,661.84
All other property.....		9,912,049.04
Less exemptions.....		87,913,371.50
Total value of all property.....		1,787,145.15
		86,126,226.35

Final valuation placed on railroad property for the year 1910.

Name.	Miles.	Rate.	Total.
Arizona Commercial Copper Co.....	4.50	\$5,000.00	\$22,500.00
Arizona Copper Co. (Limited).....	7.50	4,500.00	33,750.00
Arizona Eastern R. R. Co.:			
Maricopa and Phoenix Division.....	43.26	8,870.00	383,716.20
Gila Valley, Globe and Northern Division.....	139.41	9,600.00	1,338,336.00
Arizona and Colorado Division.....	34.98	3,000.00	104,940.00
Arizona and New Mexico Ry. Co.....	40.00	7,000.00	280,000.00
Central Arizona Ry. Co.....	15.00	2,000.00	30,000.00
Congress Consolidated Mines Co. (Limited).....	3.60	1,000.00	3,600.00
El Paso and Southwestern R. R. Co.....	89.40	12,050.00	1,077,270.00
Grand Canyon Ry. Co.....	63.58	6,000.00	381,480.00
Greenlaw Lumber Co.....	5.00	2,000.00	10,000.00
Johnson, Dagoon and Northern Ry. Co.....	8.25	2,000.00	16,500.00
Mexico and Colorado R. R. Co.....	34.70	3,000.00	104,100.00
Morenci Southern Ry. Co.....	18.00	5,600.00	100,800.00
New Mexico and Arizona R. R. Co.....	87.80	6,500.00	570,700.00
Old Dominion Copper Mining and Smelting Co.....	4.00	10,750.00	43,000.00
Ray Consolidated Copper Co.....	7.00	3,500.00	24,500.00
Saginaw and Manistee Lumber Co.....	8.00	2,000.00	16,000.00
Southern Pacific R. R. Co.....	392.50	15,000.00	5,887,500.00
The Twin Buttes R. R. Co.....	28.00	2,352.00	66,556.00
United Verde and Pacific Ry. Co.....	26.26	5,500.00	144,430.00
Western Arizona Ry. Co.....	21.57	3,600.00	77,652.00
	1,082.31		10,716,630.20
The Pullman Co.....			93,282.91
The Atchison, Topeka and Santa Fe R. R. Co. (estimated).....	386.76		2,507,661.84
Total valuation railroad property.....			13,317,574.96

Valuation for the year 1910, determined by the territorial board of railroads, which are exempt from taxation by territorial statute, of rate of taxation as fixed by act of Congress.

Name.	Miles.	Rate per mile.	Total.
Arizona and Colorado Ry. Co.....	106.990	\$4.500	\$481,455.00
Arizona Southern R. R. Co.....	20.300	6.000	121,800.00
Arizona and Swansea R. R. Co.....	22.000	6.000	132,000.00
Atchison, Topeka and Santa Fe Ry. Co.....	386.760	15.000	5,801,400.00
Bradshaw Mountain R. R. Co.....	35.650	5.500	196,075.00
El Paso and Southwestern R. R. Co.....	59.300	12.000	711,600.00
Phoenix and Eastern R. R. Co.....	95.261	5.000	476,305.00
Prescott and Eastern R. R. Co.....	26.400	6.000	158,400.00
Santa Fe, Prescott and Phoenix Ry. Co.....	195.350	9.000	1,758,150.00
Shannon Arizona Ry. Co.....	10.700	10.000	107,000.00
Total.....	998.711		9,944,185.00
Less estimated taxable valuation of Atchison, Topeka and Santa Fe Ry. Co.....			2,507,661.84
Valuation of railroad property exempt from taxation.....			7,436,523.16

Gross product for the year 1909 of the mines and mining claims of Arizona, compiled from the verified statements filed with the territorial auditor, in compliance with chapter 20, Laws 1907.

Name of company.	County.	Mining district.	Copper.	Gold.	Silver.	Lead.	Zinc.	Iron.	Sulphur.	Total value.
Arizona United Mining Co.	Cochise.	Johnson.	Pounds. 237,600	Ounces. 15,000	Ounces. 3,400,000	Pounds.	Pounds.	Pounds.	Pounds.	\$32,391.36
Calumet and Arizona Mining Co.	do.	Warren.	27,747,853	5,660,857	191,254,250					3,817,737.56
Commonwealth Mining Co.	do.	Turquoise.		2,716,430	228,470,890					173,817.87
Copper Queen Consolidated Mining Co.	do.	Warren.	84,802,147	8,574,543	601,828,040	437,601				11,516,975.71
Denn-Arizona Copper Co.	do.	do.	99,222	41,106						12,732.57
Great Western Copper Co.	do.	Turquoise.	465,219							26,066.53
Herschell Mining and Milling Co.	do.	Tombstone.		239,050	47,508,000					31,269.50
Shannon Copper Co. (Incorporated).	do.	Turquoise.	283,897	596,634	47,485,050					79,005.21
Shattuck-Arizona Copper Co.	do.	Warren.	1,737,649							232,072.64
Superior and Pitsburg Copper Co.	do.	do.	24,440,410	3,855,355	190,177,000					3,356,965.53
Tombstone Consolidated Mines Co. (Limited).	do.	Tombstone.		1,862,000	137,563,000	1,433,747	891,365			220,554.12
Wolverine and Arizona Mining Co.	do.	Warren.	301,274							39,111.50
Arizona Commercial Copper Co.	Gila.	Globe.	1,171,450		16,827,380					160,744.24
The Gibson Copper Co.	do.	Summit.	667,405							86,442.57
Globe Consolidated Copper Co.	do.	Globe.	58,832	25,490	824,360			556,420	553,000	112,413.84
Old Dominion Copper Mining and Smelting Co.	do.	do.	25,397,475	580,615	50,988,610					3,333,362.16
Superior and Boston Copper Co.	do.	do.	745,501		20,414,000					107,294.76
The United Globe Mines.	do.	do.	3,674,728		43,486,000					500,145.15
Warrior Copper Co.	do.	do.	3,594,054	33,660				1,641,420		470,867.53
Arizona Copper Co. (Limited).	Graham.	Copper Mountain.	31,150,253							4,043,877.15
Clifton Copper Mines (Limited).	do.	Greenlee.	125,760							16,525.15
Detroit Copper Mining Co.	do.	Copper Mountain.	23,688,735							3,088,253.50
New England and Clifton Copper Co.	do.	Greenlee.	1,061,695		20,161,720					150,800.54
Peru Copper Co.	do.	Clifton.	15,379,558	1,233,059	43,751,740					2,044,598.90
Shannon Copper Co.	do.	do.	37,724		2,154,000					5,005.68
Standard Consolidated Copper Co.	do.	do.								
Standard Copper Mines.	do.	do.	459,794							59,720.45
Vulture Mines Co.	Maricopa.	Vulture.		1,032,970	250,660					21,450.60
Arizona Gold Mines Co.	Mohave.	Maynard.		330,000	42,000					6,552.73
Grand Gulch Mining Co.	do.	Benley.	299,154		1,720,000					39,722.03
Gold Road Mining and Exploration Co.	do.	San Francisco.		3,451,000	2,800,654					79,365.13
Tom Reed Gold Mines Co.	do.	do.		11,008,337	4,311,820					229,765.47

Union Basin Mining Co.....	do.....	Wallapai.....	778,510	2,008,440	5,161,750	301,228.65
El Toro Copper Co.....	Pima.....	Silverbell.....	321,419			26,744.61
Helvetia Copper Co.....	do.....	Helvetia.....	841,675			109,208.25
Imperial Copper Co.....	do.....	Silverbell.....	10,115,355	121,783,000		1,875,693.77
Twin Buttes Mining and Smelting Co.....	do.....	Pima.....	1,097,550	9,800,000		147,631.23
Mohawk Gold Mines Co.....	Pinal.....	Old Hat.....		347,000		52,896.54
Ray Consolidated Copper Co.....	do.....	Mineral Creek.....	2,549,000	324,704		78,722.35
Cienega Copper Co.....	Yavapai.....	Verde.....	605,108			12,722.36
The Congress Consolidated Mines Co. (Limited).....	do.....	Martinez.....	98,000	16,176,097		188,762.93
Consolidated Arizona Smelting Co.....	do.....	Big Bug.....	2,979	8,710,453		12,470.80
Grand Canyon Lime and Cement Co.....	do.....	Unknown.....	82,250	3,055,000		56,106.50
Ideal Mining and Development Co.....	do.....	Big Bug.....	189,107	47,001,000		178,080.14
Miller Brothers.....	do.....	do.....				22,589.00
Monica Mines Co.....	do.....	Weaver.....	1,815,000			37,516.05
Poland Mining Co.....	do.....	Big Bug.....	6,135,800	15,344,290	261,754	150,017.10
Puntney Lime Co.....	do.....	Lime Stone Canyon.....	16,107			25,550.00
Tiger Gold Mining Co.....	do.....	Tiger.....	4,802	2,725,970	143,170	27,738.30
United Verde Copper Co.....	do.....	Verde.....	36,695,259	495,478,830		6,870,766.10
Gold Star Mining Co.....	Yuma.....	King of Arizona.....	24,490,000	9,937,000		511,305.43
King of Arizona.....	do.....	do.....	11,853,788			245,017.80
Little Butte Consolidated Mines Co.....	do.....	Pedrosa.....	46,170	108,000	179,687	8,675.37
			297,702,940	182,278,849	2,153,102	42,946,745.19
				2,347,708,315	6,083,145	
					3,325,347	
					599,010	

Tons silica.

e Tons lime.

Summary of assessed valuation by general classifications.

Land and improvements.....	\$12, 624, 759. 90
All mining property.....	19, 714, 592. 16
Town and city lots and improvements.....	24, 957, 628. 36
All live stock.....	7, 480, 050. 00
Railroads.....	13, 224, 292. 04
All other property.....	9, 912, 049. 04
Total valuation of all property.....	87, 913, 371. 50
Less exemptions.....	1, 787, 145. 15
Total subject to taxation.....	86, 126, 226. 35

RECOMMENDATIONS.

Under the terms of the enabling act no session of the legislature of the Territory may be held during the year 1911. Should there be delay in the admission of the Territory extending beyond the end of the present fiscal year remedial legislation by Congress will be necessary, inasmuch as the appropriations made by the last legislature for the maintenance of the institutions of the Territory and the payment of salaries, contingent and other expenses, will lapse on June 30, 1911. I recommend, therefore, that Congress be requested, at the coming session, to make provision for this contingency by authorizing the levy of taxes for the payment of the expenses of the territorial government for the fiscal years ending 1912 and 1913, and authorizing and directing such appropriations to be made as may be needed for that purpose.

Accompanying this report I have the honor to submit for the files of your office copies of the reports of the various territorial officials and boards which have been made to me covering the last fiscal year.

RICHARD E. SLOAN,
Governor of Arizona.

The SECRETARY OF THE INTERIOR.

REPORT OF THE GOVERNOR OF HAWAII.

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REPORT OF THE GOVERNOR OF HAWAII

EXECUTIVE CHAMBER,
Honolulu, Hawaii, September 2, 1910.

SIR: I have the honor to submit the following report for the fiscal year ended June 30, 1910:

GENERAL CONDITIONS.

It is ten years since the establishment of territorial government and twelve years since annexation. During the first few years the sense of greater stability in government and tariff conditions, accompanied by an adequate supply of labor and good prices, produced something of a boom. Then, in consequence of overinvestment, followed by low prices, there were several years of dull times. During the last few years, however, progress has been steady and rapid. The Territory and its people have more than caught up financially, crops have increased in size and variety, and prices have been good. General prosperity prevails.

During the first five years, owing to a plague epidemic and the transfer of customs receipts to the National Government, the Territory not only expunged a surplus of about \$700,000, but accumulated a deficit of about the same amount, while during the last five years it has expunged that deficit and accumulated a surplus of an equal amount. Current receipts for the last year were \$3,641,245.35, an increase of \$589,718.54 over the amount of the previous year. Disbursements, including payments to counties, were \$3,264,364.20, an increase of \$329,380.10. The receipts exceeded the disbursements by \$260,338.04. The net current cash balance at the close of the year, after deducting all outstanding warrants, was \$698,970.96. Bonds bearing 4 per cent interest were paid to the amount of \$80,000 and public-improvement 3½ per cent bonds issued to the amount of \$200,000. The bonded debt is now \$4,079,000, or 2.71 per cent of the assessed value of property.

Imports and exports for the year aggregated \$71,624,659, an increase of \$9,678,175; the imports were \$25,138,247, an increase of \$3,713,267, and the exports \$46,486,412, an increase of \$5,964,908. The imports and exports for the first year of territorial government were \$30,880,478. The trade is chiefly with the mainland of the United States, in the imports from which there has been a steady increase during the last six years from \$11,703,519 to \$20,531,913. The inward tonnage was 1,308,801, an increase of 149,683, and the outward tonnage nearly as much. The customs receipts, which go into the Federal Treasury, were \$1,575,319.15, an increase of \$178,939.25. The receipts during the ten years aggregated

\$13,258,699.52. The federal internal-revenue receipts were \$209,132.51, an increase of \$130,024.52, of which \$124,201.18 was the corporation tax. During the ten years the receipts were \$744,919.48. During the year the federal customs, internal revenue, and postal receipts aggregated \$1,957,700.78. The assessed value of property was \$150,268,467, an increase of \$11,357,647 for the year, or \$29,095,539 for the ten years of territorial government, or \$94,014,025 for the twelve years since annexation. Bank deposits amounted to \$13,324,305.54 at the close of the year, an increase of \$3,666,486.33. At the end of the first year of territorial government they aggregated \$4,662,131.17. The capitalization of the corporations which have capital stock was \$152,035,525, an increase of \$15,777,400 for the year. Of the 731 existing domestic corporations, 220 were incorporated before annexation and 511 since, the capital stock of those of the former which have capital stock being \$72,559,375 and of the latter \$79,476,150.

Besides the general ten-year census there were made the five-year labor investigation required by law, and also at the same time and under the same direction a military census of the Territory and a social census of the city of Honolulu. The results of these are not yet available, excepting the figures for the entire population, as follows: The population of the Territory is 191,909, an increase of 37,908, or 24.62 per cent for the ten years. The population by races is as follows: Hawaiians, 26,099, a decrease of 3,688; Part-Hawaiians, 12,485, an increase of 4,637 (of these 8,773 are Caucasian-Hawaiian and 3,712 Asiatic-Hawaiian); Chinese, 21,698, a decrease of 4,064; Japanese, 79,663, an increase of 18,548; Portuguese, 22,294, an increase of 6,619; Spanish, 1,962, and Porto Ricans, 4,828 (both new); blacks and mulattoes, 687; other Caucasians, 14,684, an increase of 4,107; all others, 8,196, an increase of 4,959 (largely Koreans and Filipinos). The nonoriental population has increased somewhat more than the oriental, both absolutely and in percentage. The population of the city of Honolulu is probably upward of 50,000, an increase of more than 25 per cent. During the last year settlers and tourists from the mainland have come in increased numbers, and 1,790 Russian and 868 Portuguese immigrants were introduced by the board of immigration and 2,651 Filipinos by the sugar planters. Early in the year the Territory was visited by a subcommittee, including the chairman, of the federal immigration commission. A special tax of 2 per cent on incomes in excess of \$4,000 has been imposed, of which three-fourths was allotted for immigration. This tax yielded \$382,894.95.

The other fourth of this fund was allotted to conservation purposes and has been applied not only to meet all the expenditures of the territorial bureau of agriculture and forestry, with its three divisions of forestry, animal industry, and entomology, and in aid of the federal experiment station and other lines of work, but also, to the extent of more than \$36,000 during the year, to the inauguration and conduct of topographic and hydrographic surveys of the Territory. These surveys are carried on in cooperation with the United States Geological Survey, whose chief hydrographer, chief topographer, and expert in underground waters visited the Territory and laid out the work early in the year. A large amount of practical scientific work is being done along many lines.

During the first five years of territorial government the Federal Government did little in the Territory outside of its routine work,

but during the last five years it has made up in liberal appropriations for harbors, light-houses, public buildings, and military and naval defenses. Aside from liberal appropriations and authorizations made for these purposes during the last year, Congress passed a comprehensive act amending the organic act of the Territory in many important respects. This act was the result of several years of study by the territorial executive and others and was recommended by the territorial legislature at a special session called for the purpose. The most important amendments relate to the land laws, the principal object being to facilitate homesteading and at the same time prevent homestead lands from being taken in the first instance or afterwards transferred for purposes of speculation or investment. Among other things the act forbids the alienation of such land, even after a patent is obtained, to any alien, or to any corporation, or to any person who already has sufficient land for a homestead. These amendments mark the beginning of a new era in public land matters in Hawaii, and have resulted already in great activity in such matters. The increased attention given by Congress in recent years is due largely to visits of many of its members to this Territory. During the last year, as well as two years previously, a large number of these came as guests of the Territory.

The public health has in general been good during the year. Among other things, a comprehensive and vigorous antituberculosis campaign has been instituted by the territorial government in conjunction with private organizations and county governments, and the new policy in regard to the treatment of leprosy has been put into execution with satisfactory results.

The school enrollment is 25,537, an increase of 648. The College of Agriculture and Mechanic Arts has made rapid progress, and among other things has obtained all the land for its site, valued at more than \$100,000. Provision has been made, through legislative action and by arrangements with other libraries and a private donor and otherwise, for a site, a \$100,000 building, 20,000 volumes, and an annual income of more than \$15,000, toward the establishment and maintenance of a territorial library.

Territorial public improvements during the year have been chiefly in wharves and waterworks. Among other things, a \$300,000 reservoir, with a capacity of 700,000,000 gallons, was completed for the Honolulu waterworks, and a 22-mile pipe line, costing \$100,000, was laid for an agricultural district on the island of Maui. Among quasi-public improvements the most important were the construction of a cement-lined irrigation ditch nearly 25 miles long, with a capacity of 100,000,000 gallons daily, at a cost of \$800,000, in the district of Hamakua, on the island of Hawaii, and the partial construction of a railroad to run from Hilo through the district of North Hilo into the district of Hamakua, a distance of about 40 miles, and to cost about \$2,000,000.

During the year special attention has been given to increasing the efficiency and economy of the government through reorganization, the bringing of work in all the departments up to date, and otherwise. Commissions have been appointed to investigate and report on the subjects of school funds, private wharves and landings, truck gardening and marketing, financial aid to homesteaders, stamp duties and licenses, and pure milk.

NEEDED LEGISLATION.

So much of the legislation recommended in my last report was enacted by Congress at the last session that very little need be recommended for the next session.

One of the urgent needs for some years past has been an increase in the facilities for passenger travel between Hawaii and the mainland through the suspension of the coastwise navigation laws for a limited period so far as they relate to such travel, or in some other way.

Appropriations are desired for continuing the work upon Honolulu, Hilo, and Kahului harbors, for beginning work upon some harbor on the island of Kauai, and for the already authorized public buildings at Honolulu and Hilo.

The creation of a national park to include the active volcano Kilauea and neighboring extinct craters and other objects of interest, is recommended.

A light-house depot is greatly needed.

A fish hatchery and a soil survey also are needed.

SPECIAL SESSION OF LEGISLATURE.

Early in November, 1909, a special session of the legislature, five days in length, was held to consider a form of bill presented to it containing many and important proposed amendments to the organic act. The bill, with a few minor changes, was recommended unanimously by the legislature for enactment by Congress, two members being absent at the time from each branch of the legislature. This bill, further changed slightly by Congress, became law on May 27, 1910. For its provisions see the next heading.

AMENDMENTS OF ORGANIC ACT.

The provisions of the act approved May 27, 1910, to amend the organic act of the Territory will be referred to more fully in other parts of this report under the respective appropriate headings. In general, the act provides for increases in the salaries of a number of executive and judicial officers and members of the legislature; it settles doubts as to the applicability of various federal laws to Hawaii by providing that such laws, which purport to relate to all Territories, shall not apply to this Territory, the provisions of its organic act being deemed sufficient; it settles doubts also as to the powers of the legislature with reference to appropriations, and also as to the validity of numerous naturalizations made by the circuit courts; it improves in several respects the law relating to disqualifications of judges; it authorizes the restoration to the Territory of land set aside but no longer needed for federal purposes, and provides for the transfer from the Federal Government to the territorial government of the title to property used or required by the latter for public purposes; it authorizes longer terms for public bonds; it makes applicable to Hawaii all general federal appropriations, the Comptroller of the Treasury having held previously that some of them, especially several relating to the scientific bureaus of the Government, did not apply

As its principal feature, however, the act makes many long-desired and much-needed changes in the land laws; it simplifies the administration of those laws and settles a number of important questions as to their meaning; it provides for giving to persons residing on public lands, under certain conditions, preference rights to obtain titles to their homes; it provides for settling the title of many churches to lots long used as church sites; it places proper limitations on the power of selling, leasing, and exchanging public lands for other than homestead purposes. The most important changes in the land laws, however, consist in the provisions intended for the furtherance of homesteading. These require homesteads to be disposed of by drawings instead of at auction or by standing in line, and permit the time limit for compliance with homestead conditions to be extended in proper cases; they confine the right to acquire homesteads to persons who are citizens and who have not already sufficient land for a homestead; and they prevent aliens, corporations, and large landholders from obtaining control of hereafter-homesteaded lands at any time, whether before or after they have been patented.

ELECTION ON PROHIBITION.

An effort was made at the last session of Congress to enact a prohibition law for Hawaii, but in consequence of opposition from the Territory there was substituted for the bill a joint resolution providing for a referendum to the voters of the Territory upon the question whether the territorial legislature should enact a prohibitory law at its next session. This resolution was approved April 26, 1910, and the election was held July 26, 1910.

Of the 13,274 registered voters, 9,773 participated in the election, and of these 2,262 voted affirmatively and 7,511 negatively. While the vote was influenced by many considerations, not the least was the fact that the Territory has an exceptionally good high-license law. Its most important feature is the large powers conferred upon the boards of license commissioners, of which there is one for each county, composed of five members appointed by the governor with the consent of the senate. These boards are clothed with authority not only to determine the number of licenses and the persons to whom and localities for which they may be granted, but also to see that the licensees live up to the requirements of the law and such conditions as the commissioners impose.

In general, there was a steady increase in the number of liquor licenses from 1898, the year of annexation, until 1903; then a slight decrease until the act of 1905, under which there was a very large increase, which fell off slightly until the present act of 1907, which has resulted in a large decrease.

Vote on prohibition.

County.	Registered voters.	Vote cast.	Voted "Yes."	Voted "No."
Honolulu (Island of Oahu).....	6,427	4,937	934	4,003
Hawaii.....	3,154	2,143	542	1,601
Maua.....	2,587	1,809	471	1,398
Kauai.....	1,106	824	315	509
Total.....	13,274	9,773	2,262	7,511

CITY AND COUNTY GOVERNMENTS.

The Territory was divided into four counties and county governments were established on July 1, 1905. There is a small fifth county, comprising the leper settlement, which, however, is under the board of health and is a county in little more than name. The four principal counties were named for the four principal islands, namely, Oahu, Hawaii, Maui, and Kauai, which with their respective adjacent smaller islands constitute the counties. On January 1, 1909, the county of Oahu was converted into the city and county of Honolulu.

County functions were confined mainly to roads, police, and fire departments until a year ago, when there were added the construction and maintenance of district court-houses, jails, schoolhouses, hospitals and, except in Honolulu, water and sewer works, payment of salaries and expenses of district courts, and certain health functions.

Until a year ago practically all county revenues were derived from certain taxes and license fees collected and paid over by the Territory, but, beginning a year ago, the counties now have the collection of license fees other than liquor license fees, fines and costs of district courts, and water and sewer rates except in Honolulu, while the Territory continues to pay to them one-half of the poll, school, property, and general income taxes, and keeps on special deposit for their use the road taxes.

The total income of the counties, except certain small collections made by them before the last fiscal year, has been as follows: 1906, \$1,103,569.58; 1907, \$951,582.22; 1908, \$1,091,328.83; 1909, \$1,189,452.86; 1910, \$1,394,693.29. For purposes of comparison the amount for 1906 should be somewhat smaller, both because certain taxes for more than one year were collected in that year and because the amounts paid to the counties were determined somewhat arbitrarily for that, the first, year of county government.

In the following table the taxes collected by the Territory and turned over to the counties are the amounts payable to the counties for the year as shown by the territorial auditor's books, whether entirely drawn or received by the counties during the year or not, while the amounts collected by the counties are those actually received during the year as shown by the county books.

Income of counties, fiscal year ended June 30, 1910.

County.	Collected by Territory. ^a		Collected by counties. ^b				Total.
	General taxes.	Road tax.	License fees.	Fines and costs.	Water and sewer rates.	Miscellaneous.	
Honolulu(Oahu)	\$502,519.56	\$53,962.35	\$72,681.11	\$15,723.58	.....	\$20,106.87	\$664,993.47
Hawaii.....	215,459.09	39,904.30	34,827.66	18,864.30	\$9,813.04	2,202.31	321,070.70
Maui.....	190,316.43	23,439.00	16,323.02	8,821.90	10,024.86	3,749.73	252,674.94
Kauai.....	111,192.26	22,780.45	11,089.44	8,179.88	2,708.65	3.50	155,954.18
Total.....	1,019,487.34	140,086.10	134,921.23	51,589.66	22,546.55	26,062.41	1,394,693.29

^a The items in the general-tax column include one-half of the poll, school, property, and general income taxes; these are paid over to the counties by the Territory. Those in the road-tax column include all road taxes; these are kept by the Territory on special deposit for the counties.

^b The items in the license-fee column include most licenses other than liquor licenses. The fines and costs are those of district magistrates' courts. The water and sewer rates in Honolulu are still collected and used by the Territory, and there are no sewer rates on Maui and Kauai. Of the first item under miscellaneous, \$13,821 are garbage and excoavator receipts.

FINANCES.

BONDED DEBT.

The bonded debt of the Territory at the beginning of the fiscal year was \$3,959,000, which was increased during the year by an issue of \$200,000 of 3½ per cent bonds and decreased by the payment of \$80,000 of the 1903 issue of 4 per cent bonds, leaving a total bonded indebtedness of \$4,079,000 at the close of the year, as follows:

Bonded indebtedness of Territory.

May 1, 1903, 5-15 year 4 per cent bonds.....	\$235,000
October 1, 1903, 5-15 year 4½ per cent bonds.....	1,000,000
January 2, 1905, 5-15 year 4½ per cent bonds.....	1,000,000
October 4, 1905, 5-15 year 4 per cent bonds.....	600,000
January 2, 1906, 5-15 year 3½ per cent bonds.....	750,000
October 1, 1907, 5-15 year 3½ per cent bonds.....	294,000
October 1, 1909, 5-15 year 3½ per cent bonds.....	200,000
Total.....	4,079,000

This is 2.71 per cent of the assessed value of property in the Territory. These are all public-improvement bonds, except the first issue, which was for the payment of claims for property destroyed in the suppression of a plague epidemic, and except the \$600,000 issue, which was a refund of public-improvement bonds. The issue made in the last fiscal year was one-half for Honolulu harbor and wharf improvements, and one-half for a 22-mile pipe line and water works for the benefit of homesteaders on the island of Maui. There are no city or county bonds.

Hitherto bonds have been required by the organic act to be redeemable in not more than five and payable in not more than fifteen years; but hereafter, under a recent amendment by Congress, bonds may be made redeemable and payable in any number of years not exceeding thirty.

Each sale of territorial bonds has been made on a better basis than the previous one. In 1903 the 4½ per cent bonds sold at so slight a premium that the percentage basis was 4.50; in 1905 the 4½ per cent bonds sold at 100.1, a percentage basis of 4.20; in 1905 the 4 per cent bonds sold at 101.375, a percentage basis of 3.70; in 1906 the 3½ per cent bonds sold at 98.125, a percentage basis of 3.57; in 1907 the 3½ per cent bonds sold at 98.15, a percentage basis of 3.57; and in 1909 the 3½ per cent bonds sold at 98.25, a percentage basis of 3.56.

At the beginning of the fiscal year, the cash balance in the sinking-fund account was \$29,532.66, to which was added during the year from land sales, public lands department, \$40,462.45; from land sales, public works department, \$1,104; from revenues, Honolulu water works, \$13,437.77; from revenues, Honolulu sewer works, \$4,989.93; from interest on bank deposits, \$215.73; and from general revenues as provided by the sinking-fund act, \$15,236.57, making a total of \$104,979.11, of which \$80,000 was paid for redemption of 4 per cent bonds, as above stated, leaving a balance of \$24,979.11 at the close of the year.

In the loan-fund account the cash balance at the beginning of the year was \$85,474.30, to which was added during the year \$196,500, making a total of \$281,974.30, from which warrants have been paid

to the amount of \$191,309.95, leaving at the close of the year a cash balance of \$90,664.35, against which there were outstanding warrants to the amount of \$2,460.61.

RECEIPTS AND EXPENDITURES.

The receipts for the year were \$3,641,245.35, an increase of \$589,718.54 over the amount, \$3,051,526.81, for the previous year. The expenditures were \$3,264,364.20, an increase of \$329,380.10 over the amount, \$2,934,984.10, for the previous year. The receipts exceeded the expenditures by \$260,338.44, as compared with an excess of \$116,542.71 in receipts over expenditures for the previous year, and an excess of \$147,630.54 in expenditures over receipts for the year before that.

The receipts were increased mainly by an additional and special income tax imposed for immigration and conservation purposes and by a large increase in inheritance taxes as well as, in a lesser degree, by an increase in general taxes and in proceeds of sales and leases of public lands. These increases were offset, however, to a considerable extent by the transfer of the collection of fees for licenses other than liquor licenses, fines and costs of magistrates' courts, and certain water and sewer rates and other revenues to the counties. The expenditures were increased mainly by the expenditures for immigration and by a large increase in payments to counties. There was an aggregate increase of \$646,014.33 in receipts from taxes of all kinds, but owing to the transfer of certain collections as above stated to the counties there was a diminution of \$56,295.79 in receipts of revenues of all other kinds.

Cash on hand and floating indebtedness, by fiscal years, since organization of territorial government.

Fiscal years.	Cash on hand.	Outstanding warrants.	Net floating indebtedness.	Net cash available for ensuing year.
1901.....	\$75,994.97	\$176,406.45	\$100,500.48	.....
1902.....	287,131.30	297,427.87	10,296.57	.....
1903.....	73,181.63	240,713.42	167,531.79	.....
1904.....	56,613.29	730,093.99	663,480.70	.....
1905.....	59,408.49	636,039.28	576,630.79	.....
1906.....	335,331.37	72,227.96	.....	\$263,103.41
1907.....	348,216.51	34,740.49	.....	313,476.02
1908.....	391,737.19	235,891.71	.....	155,845.48
1909.....	453,106.76	170,718.57	.....	282,388.19
1910.....	845,218.51	146,247.55	.....	698,970.96

Receipts and disbursements, fiscal year ended June 30, 1910.

RECEIPTS.

Taxes:

Real property.....	\$709,943.35
Personal property.....	720,252.68
Specific property (automobiles, carriages, dogs, etc.)..	46,554.50
Insurance.....	20,141.87
Income, general.....	435,994.55
Income, special.....	377,694.27
Inheritance.....	150,153.11
Personal (poll, school, road).....	248,663.00
Penalties and costs.....	17,252.71
	\$2,726,650.04

Liquor licenses.....	\$92,205.83
Documentary stamps.....	58,387.50
Land sales.....	112,589.18
Land revenues (rents, etc.).....	284,933.01
Honolulu water and sewer revenues.....	184,277.14
Harbor, wharf, and pilot revenues.....	74,836.54
Recording fees.....	16,097.75
Fines and costs.....	13,214.29
Support of United States prisoners.....	8,334.00
Interest on bank deposits.....	9,368.91
Miscellaneous.....	80,351.16

Total receipts.....	3,641,245.35
Cash balance July 1, 1909.....	453,106.76

Total.....	4,094,352.11
Transferred from special accounts.....	39,701.72
Total.....	4,134,053.83

DISBURSEMENTS.

Outstanding warrants June 30, 1909.....	\$170,718.67
Expenses for fiscal year 1909-10:	

Legislature.....	\$15,180.33
Governor's and secretary's offices.....	6,356.18
National guard.....	9,651.11
Alaska-Yukon-Pacific Exposition.....	12,533.85
Expenses of distinguished visitors.....	15,541.06
Pensions.....	8,500.00
Auditing department.....	10,207.23
Treasury department.....	15,074.65
Tax bureau.....	67,343.01
Public instruction department.....	434,423.12
College of agriculture and mechanic arts.....	8,820.99
Public works department.....	115,283.64
Public lands department.....	14,161.08
Survey department.....	14,036.49
Public health department.....	325,555.92
Judiciary department.....	82,395.48
Attorney-general's department.....	15,739.84
Prisons.....	49,172.11
Record bureau.....	15,208.19
Miscellaneous.....	12,403.24

1,247,587.52
163,642.50

Interest on public debt.....

Transferred to special accounts:

Immigration and conservation.....	378,570.16
Honolulu water and sewer works.....	184,277.14
Road tax (for counties).....	140,086.10
Sinking fund.....	57,018.75
Land purchases.....	62,749.63
Homestead roads.....	8,273.10
Homesteader's improvements.....	1,436.25
Registered land assurance.....	630.33
Industrial school.....	577.88
Lahainaluna school.....	27.50

833,646.84

Paid to counties:

City and county of Honolulu.....	502,519.56
County of Hawaii.....	215,459.09
County of Maui.....	190,316.43
County of Kauai.....	111,192.26

1,019,487.34

Total disbursements.....	3,435,082.87
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Current cash balance.....	\$845, 218. 51
Less warrants outstanding June 30, 1910.....	146, 247. 65
Net current cash balance.....	\$698, 970. 06
	4, 134, 063. 83

Treasury cash balances at close of business June 30, 1910.

Current account.....	\$845, 218. 51
Loan-fund account.....	90, 664. 85
Sinking-fund account.....	24, 979. 11
Special income-tax account.....	64, 190. 87
Honolulu water and sewer works account.....	4, 804. 92
Special land sales account.....	14, 125. 03
Road-fund account.....	488. 50
Miscellaneous special-fund accounts.....	16, 579. 59
Total cash on hand.....	1, 061, 050. 83

SPECIAL FUNDS.

The special loan and sinking funds have been stated above under the heading of "Bonded debt."

In the special income-tax fund, created a year ago for immigration and conservation purposes, the cash balance on July 1, 1909, was \$4,324.79, to which was added during the year \$378,570.16, making a total of \$382,894.95, of which \$238,133.52 was expended for immigration and \$86,464.19 for conservation purposes, a total of \$324,597.71, leaving a cash balance on June 30, 1910, of \$64,190.87, against which there were outstanding warrants of \$5,893.63, leaving a net cash balance of \$58,297.24.

In the Honolulu water and sewer works fund, created a year ago, the receipts from waterworks were \$134,377.83, and from sewer works \$49,899.31, a total of \$184,277.14, of which \$148,706.06 was expended for waterworks, namely, \$106,234.74 for maintenance and improvements, \$29,033.55 for interest on bonds, and \$13,437.77 for redemption of bonds; and \$35,409.39 for sewer works, namely, \$21,501.29 for maintenance and improvements, \$8,918.17 for interest on bonds, and \$4,989.93 for redemption of bonds, making total disbursements of \$184,115.45, leaving a cash balance on June 30, 1910, of \$4,804.92, against which there were outstanding warrants of \$4,643.23, leaving a net cash balance of \$161.69.

In the road fund the cash balance on July 1, 1909, was \$2,948.50, to which was added during the year \$140,086.10, making a total of \$143,034.60, of which \$143,546.10 was disbursed to the counties, leaving a cash balance on June 30, 1910, of \$488.50.

In the special land sales fund, created a year ago for the purchase of lands for public purposes out of the proceeds of sales made for the purpose, the receipts were \$62,749.63, of which \$48,624.60 was expended, leaving a balance of \$14,125.03.

In miscellaneous special funds, including land registration assurance, fire claims, industrial school, Lahainaluna school, school taxes, homesteaders' improvements, and nine special roads, the cash balances on June 30, 1909, aggregated \$18,793.40, to which was added \$10,945.06, making a total of \$29,738.46, of which \$13,158.87 was expended, leaving balances on June 30, 1910, aggregating \$16,579.59.

TAXATION.

The taxes collected during the year amounted to \$2,736,650.04, an increase of \$646,014.33 over the amount, \$2,080,635.71, for the previous year.

There were increases in all classes of taxes except insurance. The largest increase was in inheritance taxes, which amounted to \$150,153.11 as compared with \$17,011.88 for the previous year. In the table below the greatest apparent increase was in the income tax, but the amount for 1910 includes a special income tax imposed for the first time a year ago, a small portion of which was paid before the close of the fiscal year 1909; so that for purposes of comparison of the income taxes for the years 1909 and 1910, the amounts should be \$389,500.94 and \$435,994.55, for the general income tax, and \$4,324.29 and \$377,694.27 for the special income tax for those years, respectively, instead of \$393,825.23 and \$813,678.67 for both taxes combined. For purposes of comparison, also, the total amount of taxes for 1906 should be about \$665,000 less because in that year certain taxes were collected for a year and a half.

The assessed value of real and personal property increased from \$138,910,820 to \$150,268,467, or nearly 9 per cent. The assessed value of property of corporations, firms, etc., was \$110,302,867; of Anglo-Saxons, \$19,542,375 (these being also the principal owners through corporations, etc.); of Hawaiians, \$12,400,068; of Chinese, \$3,298,632; of Latins, \$2,804,313; of Japanese, \$1,920,212. Assessments of real property were much greater than of personal property for Anglo-Saxons, Hawaiians, and Latins, and much less for Orientals, both Chinese and Japanese. Of the general income tax (exemption \$1,500), 83 per cent was paid by 297 corporations, etc., and 17 per cent by 2,022 persons, and of the special income tax (exemption \$4,000), 92½ per cent was paid by 277 corporations, etc., and 7½ per cent by 239 persons. The cost of collecting taxes was 2.56 per cent of the amount collected, the lowest percentage thus far.

Taxes, by years ended June 30, since organization of territorial government.

Fiscal year.	Real property.	Personal property.	Specific property.	Personal.	Income.	Penalties, costs, and interest.	Inheritance.	Insurance.	Total.
1901..	\$444,050.63	\$490,392.00	\$18,751.36	\$249,604	.....	\$9,294.58	\$939.29	\$3,223.65	\$1,216,265.20
1902..	532,637.09	671,248.09	20,412.19	231,485	\$286,630.20	11,847.92	6,074.34	3,846.00	1,664,181.43
1903..	560,466.31	692,325.37	22,591.00	255,043	202,526.44	13,385.29	1,393.33	4,685.11	1,662,406.45
1904..	618,890.81	807,689.82	22,998.80	240,736	170,511.71	15,848.97	70.00	4,623.38	1,681,269.49
1905..	609,343.72	570,654.55	23,543.50	249,990	155,978.87	16,509.18	6,271.71	6,883.59	1,639,175.12
1906..	961,433.76	928,841.53	47,989.70	243,955	391,366.65	13,703.59	5,879.69	8,760.61	2,601,930.58
1907..	654,737.94	631,326.36	39,644.40	239,001	187,687.91	21,435.83	8,789.74	14,202.74	1,796,325.92
1908..	640,051.42	635,266.81	41,350.50	244,832	266,241.74	17,697.93	21,430.05	13,978.38	1,890,847.83
1909..	668,721.80	678,886.40	40,968.00	235,520	393,825.23	19,137.76	17,011.88	26,564.55	2,080,635.71
1910..	709,943.35	720,262.68	46,554.50	248,663	813,678.67	17,262.86	150,153.11	20,141.87	2,726,650.04

The taxes were as follows: General property tax—1 per cent of full value of real and personal property in excess of \$300, except property specifically taxed. Specific property taxes—carriages, carts, etc., \$2 or \$5; automobiles, 1 cent a pound (previously \$20 per car); bicycles, \$1; dogs, \$1. Personal taxes—poll, \$1; school, \$2; road, \$2. General income tax—2 per cent of incomes in excess of \$1,500 (previously \$1,000). Special income tax—2 per cent of incomes in

excess of \$4,000 (new). Inheritance taxes—2 per cent of direct inheritances in excess of \$5,000 (previously \$1,000) and 5 per cent of collateral inheritances in excess of \$500. Insurance tax—2 per cent of gross premiums, less claims paid, return premiums, reinsurance in authorized companies, and (in case of life insurance companies) expenses.

Assessments of real and personal property, by fiscal years, since organization of territorial government.

Fiscal year.	Real property.	Personal property.	Total.
1901.....	\$58,547,900	\$62,625,038	\$121,172,938
1902.....	60,591,587	62,319,216	122,910,803
1903.....	66,137,075	63,675,007	129,812,082
1904.....	63,516,979	60,381,525	123,898,504
1905.....	67,509,036	66,415,064	133,924,100
1906.....	66,908,337	64,266,678	131,175,015
1907.....	64,901,609	66,149,614	131,051,223
1908.....	66,936,032	65,354,150	132,290,182
1909.....	68,440,615	70,470,205	138,910,820
1910.....	75,792,523	74,475,944	150,268,467

Assessed value of real and personal property for 1910, by taxation divisions.

Taxation division.	Real property.	Personal property.	Total.
First, city and county of Honolulu.....	\$34,367,440	\$41,126,130	\$75,493,570
Second, county of Maui.....	17,776,146	10,296,519	28,072,665
Third, county of Hawaii.....	16,831,448	14,097,093	30,928,541
Fourth, county of Kauai.....	6,818,489	8,956,202	15,774,691
Total for the Territory.....	75,792,523	74,475,944	150,268,467

Assessed values of real and personal property for 1910, by races, etc., of taxpayers.

Taxpayers.	Real property.	Personal property.	Total.
Corporations, firms, etc.....	\$44,876,652	\$65,424,215	\$110,302,867
Anglo-Saxons.....	16,246,566	3,295,779	19,542,345
Hawaiians.....	11,274,419	1,125,649	12,400,068
Latins.....	2,288,903	515,410	2,804,313
Chinese.....	948,143	2,350,489	3,298,632
Japanese.....	255,810	1,664,402	1,920,212
Total.....	75,892,523	74,375,944	150,268,467

Of the general income tax, \$437,033.92, with an exemption of \$1,500, the sum of \$72,714 was paid by 2,022 persons and \$364,319.92 by 297 corporations, firms, etc. Of the special income tax, \$377,694.27, with an exemption of \$4,000, the sum of \$28,423.10 was paid by 239 persons, and \$349,271.12 by 277 corporations, etc.

The cost of assessment and collection, \$65,532.11, was 2.56 per cent of the amount collected, the lowest percentage thus far.

Cost of assessing and collecting taxes, fiscal years.

Fiscal year.	Actual cost.	Percent- age of amount collected.	Fiscal year.	Actual cost.	Percent- age of amount collected.
1901.....	\$54,996.06	4.52	1906.....	\$73,350.92	*2.83
1902.....	63,300.33	3.81	1907.....	66,711.41	3.78
1903.....	70,194.46	4.25	1908.....	67,160.18	3.64
1904.....	71,362.16	4.24	1909.....	62,768.42	3.08
1905.....	59,665.71	3.66	1910.....	65,532.11	2.56

* For purposes of comparison 3.81 should be used instead of 2.83.

CORPORATIONS.

During the last fiscal year 35 mercantile, 15 agricultural, 1 bank, 1 trust, 1 savings and loan, and 4 eleemosynary, etc., corporations, 57 in all, were created; 1 agricultural and 5 mercantile corporations were dissolved, and 1 eleemosynary corporation expired by limitation, leaving at the close of the year 731 domestic corporations, an increase of 50, divided as follows: Mercantile 439, agricultural 157, railroad 11, savings and loan 8, trust 5, bank 4, street car 1, steamship 1, insurance 2, eleemosynary, etc., 103.

The total capitalization of corporations other than eleemosynary, etc., is \$152,035,525, an increase of \$15,777,400, or over 10 per cent for the year.

The federal corporation tax yielded \$124,201.18 in this Territory.

Foreign corporations to the number of 124 are authorized to do business in the Territory. Four national banks also do business in the Territory.

The classes, numbers, and capitalization of the domestic corporations now in existence, incorporated before and after the transfer of sovereignty to the United States, are as follows:

Hawaiian corporations.

Class.	Number.			Capital.		
	Incorporated before Aug. 12, 1898.	Incorporated after Aug. 12, 1898.	Total.	Incorporated before Aug. 12, 1898.	Incorporated after Aug. 12, 1898.	Total.
Agricultural.....	64	93	157	\$40,625,750	\$33,263,200	\$73,888,950
Mercantile.....	92	347	439	21,313,625	35,197,950	56,511,575
Railroad.....	5	6	11	7,370,000	7,425,000	14,795,000
Street car.....		1	1		1,000,000	1,000,000
Steamship.....	1		1	2,250,000		2,250,000
Bank.....	1	3	4	600,000	1,000,000	1,600,000
Savings and loan.....	1	7	8	300,000	290,000	590,000
Trust.....	1	4	5	100,000	600,000	600,000
Insurance.....		2	2		700,000	700,000
Eleemosynary.....	55	48	103			
Total.....	220	511	731	72,559,375	79,476,150	152,035,525

BANKS.

The bank accounts continue to reflect the material prosperity of the Territory. They show aggregate deposits of \$13,324,305.54. The commercial deposits amounted to \$9,033,385.97 on December 31, 1909, an increase of \$2,698,394.55, or 43 per cent, over the amount for the previous year. The savings deposits amounted to \$4,290,919.57 on June 30, 1910, an increase of \$968,091.78, or 29 per cent, over the amount for the previous year. The number of depositors in the savings banks numbered 12,404, an increase of 930, or 8 per cent. The savings deposits averaged \$345.93 per depositor, an increase of \$56.32, or 20 per cent. Twenty-five nationalities are represented among the savings depositors; the number of Japanese depositors decreased 149, although their aggregate deposits increased; the number of Hawaiian depositors increased 340; of Chinese depositors, 75; and of other depositors, 664.

Eleven banks were in operation during the year, namely, 6 at Honolulu on the island of Oahu; 1 at Lihue, Kauai; 1 each at Wailuku, Kahului, and Lahaina, Maui; and 1 at Hilo, Hawaii. Two others were opened on July 1, 1910, namely, 1 at Hilo, Hawaii, and 1 at Kona, Hawaii. One of the banks is solely a savings bank, 2 are only commercial banks, while the remainder are both commercial and savings banks. One of the banks is a Japanese bank, a branch of the Yokohama Specie Bank; it has recently constructed a fine building in Honolulu; in previous reports its deposits have not been included in the tables, but they are included in the tables below.

Deposits in banks since organization of territorial government.

Fiscal year.	Number of banks.	Commercial deposits Dec. 31.	Savings deposits June 30. ^a	Total.
1901.....	8	\$3,857,413.16	\$804,718.01	\$4,662,131.17
1902.....	9	4,094,919.90	1,073,581.56	5,168,501.46
1903.....	9	3,694,965.00	1,102,707.24	4,797,672.24
1904.....	9	4,159,078.89	1,372,157.00	5,531,235.89
1905.....	9	3,993,052.90	1,695,326.76	5,688,379.66
1906.....	9	5,022,495.26	2,527,943.96	7,550,439.22
1907.....	11	4,966,042.04	2,777,554.40	7,743,596.44
1908.....	11	5,074,836.16	2,588,722.87	7,663,559.03
1909.....	11	6,334,991.42	3,322,827.79	9,657,819.21
1910.....	11	9,033,385.97	4,290,919.57	13,324,305.54

^a The figures for one of the savings banks are as of April 30.

Savings bank accounts, by races, June 30, 1910.^a

Nationality.	Population, 1910.	Number of accounts.	Percentage of accounts.	Average deposit.	Total deposit.	Percentage of deposit.
Japanese.....	79,663	522	4.21	\$177.82	\$92,819.66	2.16
Chinese.....	21,698	881	7.10	328.53	289,559.59	6.75
Hawaiian.....	38,684	2,859	19.02	98.49	283,328.33	6.42
All others.....	51,964	8,642	69.67	426.37	3,676,070.99	84.67
Total.....	191,909	12,404	100.00	345.98	4,290,919.57	100.00

^a The figures for one of the savings banks are as of April 30.

INSURANCE.

The number of insurance companies doing business in the Territory, amount of insurance written, and premiums and claims paid during the calendar years are as follows:

Insurance companies authorized to transact business.

Class.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
Fire.....	53	53	53	49	46	46	46
Marine.....	10	18	17	17	13	13	13
Fire and marine.....	2	2	2	4	4	3	2
Life.....	10	10	10	11	10	10	10
Life, accident, and health.....	1	1	1	1	1	1	1
Accident and health.....	2	3	3	3	3	3	3
Accident and health and employer's liability.....	1	1	2	2	1	1	2
Surety.....	2	2	3	3	4	4	4
Employer's liability and burglary.....	1	1	1	1	2	2	1
Plate glass.....	1	1	1	1	1	2	2
Total.....	80	90	93	92	85	85	84

Insurance written, premiums and losses paid, calendar year 1909.

Class.	Insurance written.	Premiums on same.	Renewal premiums.	Losses, claims, etc., paid.
Fire.....	\$25,239,095.86	\$489,361.49	.....	\$10,259.71
Marine.....	55,824,399.17	283,080.30	.....	8,258.04
Life.....	1,240,055.00	49,292.84	\$448,759.28	464,883.36
Accident and health.....	.....	19,000.31	.....	2,251.76
Automobile.....	.....	4,563.35	.....	303.59
Burglary.....	.....	124.00	.....	.....
Employer's liability.....	.....	7,227.24	.....	622.10
Fidelity and surety.....	.....	18,218.54	.....	.....
Plate glass.....	.....	1,841.65	.....	154.44
Total.....	82,303,550.03	872,709.72	448,759.28	486,733.00
Total in 1908.....	64,234,835.81	719,907.28	443,119.93	442,069.77
Increase in 1909.....	18,068,714.22	152,802.44	5,639.35	44,673.23

The claims paid in fire and marine insurance were the smallest and in life insurance the largest for any one of the last seven years. During those seven years fire insurance written has increased from \$19,888,471.92 to \$25,239,095.86, and losses paid have varied from \$10,259.71, in 1909, to \$166,249.64, in 1906, the average having been \$75,864.48; marine insurance written has increased from \$14,854,254.71 to \$55,824,399.17, and losses paid have varied from \$8,258.04, in 1909, to \$203,047.62, in 1904, the average having been \$52,130.39; life insurance written has varied from \$1,240,055, in 1909, to \$2,417,198, in 1906, and claims paid have varied from \$75,910.53, in 1907, to \$464,883.36, in 1909, the average having been \$232,279.86.

During the same period of seven years the premiums in fire insurance have aggregated \$2,874,060.61, as compared with claims paid of \$531,051.34; in marine insurance the premiums have aggregated \$1,426,083.07, as compared with claims paid of \$364,912.75; in life insurance the premiums have aggregated \$2,979,493.17, as compared with claims paid of \$1,625,959.03, making a total of \$7,279,636.85 in premiums paid, as compared with a total of \$2,521,923.12 in claims paid for these three classes of insurance during the last seven years.

COMMERCE.

IMPORTS AND EXPORTS.

Imports and exports for the year ended June 30, 1910, exclusive of specie, aggregated \$71,624,659, an increase of \$9,678,175 over the amount, \$61,946,484, for the previous year.

The imports amounted to \$25,138,247, an increase of \$3,713,267 over those of the previous year. Those from continental United States amounted to \$20,531,913, an increase of \$3,140,507, while those from foreign countries amounted to \$4,606,334, an increase of \$572,760.

The exports amounted to \$46,486,412, an increase of \$5,964,908. Those to continental United States amounted to \$46,183,649, an increase of \$5,746,297, while those to foreign countries amounted to \$302,763, an increase of \$218,611.

The exports of domestic merchandise amounted to \$46,161,672 to continental United States and \$296,032 to foreign countries, while those of foreign merchandise amounted to \$21,977 to the United States and \$6,731 to foreign countries.

Of the exports, sugar continues to form about 90 per cent, but several minor products show gratifying increases. The exports of fruits and nuts increased from \$803,376, in 1908, to \$1,457,644, in 1909, and \$1,794,001, in 1910. The exports of coffee increased from \$174,216, in 1908, to \$238,083, in 1909, and \$330,228, in 1910. Rice, which is the largest product outside of sugar, is consumed mostly in the Territory.

The marked increase in imports from, as well as exports to, continental United States continues. During the last six years these imports have steadily increased from \$11,703,519 to \$20,531,913. They cover a wide range of articles.

The imports from foreign countries comprised: Bags, \$511,374; cement, \$20,178; chemicals, \$1,204,492; coal, \$220,391; cottons, \$130,328; fertilizers, \$157,430; food supplies, \$1,397,054; iron and steel, \$92,449; spirits, \$243,285; miscellaneous, \$629,353; total, \$4,606,334. The bags are mainly from India; the chemicals largely from England and Germany; the coal from Australia and Japan; the fertilizers from Chile; and the food supplies from Japan and Australia.

Imports and exports, by fiscal years, since organization of territorial government.

Year.	Imports.			Exports.			Total imports and exports.
	United States. ^a	Foreign countries.	Total.	United States.	Foreign countries.	Total.	
1901.....	(b)	\$2,826,633	\$2,826,633	\$27,935,885	\$117,958	\$28,053,843	\$30,880,476
1902.....	(b)	3,036,583	3,036,583	24,730,060	63,547	24,793,607	27,830,190
1903.....	\$12,675,026	3,142,013	15,817,039	26,242,899	32,569	26,275,438	42,092,477
1904.....	11,987,050	3,797,641	15,784,691	25,157,255	47,620	25,204,875	40,989,566
1905.....	11,703,519	3,014,964	14,718,483	36,114,985	59,541	36,174,526	50,893,009
1906.....	13,224,566	3,275,242	16,499,808	26,884,210	56,313	26,940,523	43,440,331
1907.....	14,225,210	4,151,709	18,376,919	29,134,467	229,914	29,364,381	47,741,300
1908.....	15,303,325	4,682,399	19,985,724	41,640,815	597,640	42,238,455	62,224,179
1909.....	17,391,406	4,033,574	21,424,980	40,437,352	84,152	40,521,504	61,946,484
1910.....	20,531,913	4,606,334	25,138,247	46,183,649	302,763	46,486,412	71,624,659
Total.....	117,042,015	36,567,092	153,609,107	324,461,547	1,592,017	326,053,564	479,662,671

^a These figures include specie except for the last two years, but since 1903 most of the specie has been handed through the post-office by registered mail, and the amount thereof is not included in this table. During the last fiscal year the shipments of gold and silver coin other than those made through the mails were: From the United States, \$986,000; from foreign countries, none; to the United States, \$589,608; to foreign countries, \$7,859; total, \$1,533,462.

^b Not kept.

Imports and exports, by countries, fiscal years 1909 and 1910.

Country.	Imports.		Exports.	
	1909.	1910.	1909.	1910.
Australia.....	\$315,502	\$277,405	\$7,054	\$15,530
Other British Oceania.....	63,214	110,007	5,554	4,906
British India.....	600,230	519,429	.....	.....
Canada.....	17,467	18,675	35,383	15,136
Chile.....	385,104	569,139	.....	.....
France.....	14,392	23,029	25	80
Germany.....	272,243	312,740	3,794	19,093
Hongkong.....	279,749	281,231	2,984	4,700
Japan.....	1,722,796	1,856,376	15,011	220,119
United Kingdom.....	303,089	455,730	2,583	1,355
Other foreign.....	59,788	182,573	11,814	21,676
Total foreign.....	4,033,574	4,606,334	84,152	302,763
United States.....	17,391,506	20,531,913	40,437,352	46,183,649
Grand total.....	21,424,980	25,138,247	40,521,504	46,486,412

Domestic exports, by articles.

Article.	United States, 1910.		Foreign, 1910.		Total, 1910.		Total, 1909.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Sugar:	<i>Pounds.</i>		<i>Pounds.</i>		<i>Pounds.</i>		<i>Pounds.</i>	
Raw.....	1,073,352,175	\$40,579,141	6,180	\$234	1,073,358,355	\$40,579,375	963,090,527	\$35,487,928
Refined...	37,242,300	2,045,921	4,200	178	37,246,500	2,046,099	38,773,800	2,144,830
Coffee, raw...	2,350,786	288,423	350,660	41,805	2,701,446	330,228	1,972,210	238,083
Rice.....	5,859,331	269,157	4,200	133	5,863,531	269,290	5,825,985	255,318
Fruits, nuts.....	1,775,050	.....	18,951	.....	1,794,001	.....	.....	1,457,644
Honey.....	32,703	.....	6,162	.....	.....	38,865	.....	53,883
Hides.....	1,334,921	139,105	.....	.....	1,334,921	139,105	1,444,120	144,887
Wool, raw....	342,757	56,425	.....	.....	342,757	56,425	336,936	52,448
Other.....	975,747	.....	228,569	.....	1,204,316	.....	.....	643,536
Total...	1,120,482,270	46,161,672	365,240	296,032	1,120,847,510	46,457,704	1,032,443,578	40,478,477

CUSTOMS RECEIPTS.

The customs receipts exceeded those of any previous year. They amounted to \$1,575,319.15, an increase of \$178,939.24 over those of the previous year. The total collected during the ten years and half a month since the organization of territorial government is \$13,258,699.52, or an average of \$1,321,307.55 a year for the ten complete fiscal years.

Customs receipts, fiscal years, since organization of territorial government.

Fiscal year.	Amount.	Fiscal year.	Amount.
1900 (half of June).....	\$45,523.99	1907.....	\$1,458,843.48
1901.....	1,219,618.93	1908.....	1,550,157.32
1902.....	1,327,518.23	1909.....	1,396,379.91
1903.....	1,193,677.83	1910.....	1,575,319.15
1904.....	1,229,492.15	Total.....	13,258,699.52
1905.....	1,043,404.40		
1906.....	1,218,764.13		

TONNAGE.

The steady increase in the tonnage of vessels entered and cleared continues. During the last year, the tonnage entered amounted to 1,308,801, an increase of 149,683, and the tonnage cleared amounted to 1,292,875, an increase of 133,126, which is exclusive of vessels engaged in interisland traffic and vessels in the military and naval services.

Notwithstanding the increase of tonnage during the preceding nine years, the number of vessels decreased from 705 to 391, owing mainly to the substitution of steamships for sailing vessels; but during the last year the number increased to 437, the largest increase having been in American vessels, the number of which increased from 284 to 312.

For many years past, even before annexation, commerce with Hawaii has been mainly in American vessels. During the last year about 96 per cent of the freight was carried in American bottoms.

The above figures as well as the following tables do not include interisland traffic, which is very large and all in American vessels, or army transports or naval vessels, of which many call at Hawaiian ports.

Number and tonnage of vessels, by fiscal years, since organization of territorial government.

Year.	Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.
1901.....	705	962,504	701	942,921
1902.....	593	917,089	597	918,547
1903.....	551	990,847	552	971,359
1904.....	498	933,847	497	936,627
1905.....	496	962,116	453	973,279
1906.....	453	1,013,841	450	1,012,987
1907.....	428	1,049,636	439	1,036,141
1908.....	416	1,075,939	412	1,069,325
1909.....	391	1,159,118	394	1,159,749
1910.....	437	1,308,801	437	1,292,875
Total.....	4,948	10,373,938	4,921	10,313,098

Nationality of vessels, fiscal year 1910.

Nationality.	Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.
American.....	312	838,613	305	827,613
British.....	62	201,116	62	201,116
Japanese.....	42	209,276	42	209,276
German.....	8	33,184	7	31,236
French.....	4	8,276	4	8,283
Norwegian.....	7	16,417	6	14,112
Italian.....	1	1,846	1	1,846
Belgian.....	1	2,074	.....	.....
Total.....	437	1,308,801	437	1,292,875

Value carried, by nationality of vessels, fiscal year 1910.

Nationality of vessels.	Imports.	Exports.
Foreign vessels:		
Japanese.....	\$1,034,997	\$305,061
British.....	862,733	44,573
German.....	359,204	14
Norwegian.....	213,864	
Italian.....	110,202	
French.....	8,610	
Others.....	1,036	
Total foreign.....	2,590,646	249,667
American.....	22,547,601	46,236,746
Grand total.....	25,138,247	46,486,413

Vessels in coastwise and foreign trade, fiscal year 1910.

	Entered.		Cleared.	
	Number.	Tons.	Number.	Tons.
Coastwise.....	312	821,704	289	689,831
Foreign.....	125	487,097	138	603,044
Total.....	437	1,308,801	427	1,292,875

* Includes vessels in traffic between this Territory and the mainland, but not vessels in traffic between the islands.

Vessels, by ports, fiscal year 1910.

Ports.	In coastwise trade.*				In foreign trade.			
	Entered.		Cleared.		Entered.		Cleared.	
	Num- ber.	Tons.	Num- ber.	Tons.	Num- ber.	Tons.	Num- ber.	Tons.
Honolulu.....	253	760,715	219	613,647	120	478,361	185	597,223
Hilo.....	33	34,299	29	32,178				
Kahului.....	12	20,154	17	31,953	3	5,398	2	3,407
Mahukona.....	13	6,032	17	8,226	1	923		
Koloa.....	1	504	7	3,827	1	2,415	1	2,415
Total.....	312	821,704	289	689,831	125	487,097	138	603,044

* Includes vessels in traffic between this Territory and the mainland, but not vessels in traffic between the islands.

REVENUE CUTTER.

During most of the year the United States revenue cutter *Thetis* has been stationed at Honolulu, partly for the purpose of protecting the bird reserve, created by executive order on February 3, 1909, comprising many small islands extending over a thousand miles to the northwest. On one of the cruises of the cutter a number of Japanese poachers were captured.

TRANSPORTATION FACILITIES.**GENERAL.**

Scarcely any question is of greater importance to the industrial development of Hawaii than that of transportation facilities, both by sea and by land. During the last year there has been further

improvement in such facilities. Between Hawaii and the mainland one large steamer, designed for perishable goods as well as for passengers and general freight, and said to be the largest vessel built in the United States during the year, has been added by one company, and a smaller passenger and freight steamer has been replaced by a larger one by another company. Tourist travel and traffic in perishable goods, however, keeps pace with the increasing accommodations, and there is still a marked shortage in the required facilities. Considerable has been accomplished in railroad construction. The Federal Government has done much work upon the harbors at Honolulu and Hilo, islands of Oahu and Hawaii, respectively, and there are good prospects for an early beginning of work on the harbor of Kahului, island of Maui, and at a later date on one of the harbors of the island of Kauai. Negotiations are in progress for the construction of a wharf that can accommodate the largest steamers under the lee of the partially constructed breakwater at Hilo. A wharf for interisland steamers has been constructed at Kahului and plans made for the construction of a wharf for the largest steamers at that port as soon as the harbor has been further improved. These wharves will obviate the necessity of lightering at those ports. Additional steamers have been equipped with long-distance wireless apparatus, thus assuring greater safety and at the same time adding greatly to the convenience of handling vessels at the various ports.

VESSELS.

Transportation facilities by sea may be classified as follows: (1) Interisland traffic, (2) traffic between the Territory and the mainland and Mexico, and (3) trans-Pacific traffic, making Hawaii a point of call.

INTERISLAND TRAFFIC.

This continues to be conducted almost exclusively by the Inter-Island Steam Navigation Company, whose fleet consists of 16 steamers of from 192 to 940 tons net register each and an aggregate net tonnage of 6,318. These steamers visit regularly nearly all ports in the Territory and give excellent service. During the year they carried 62,236 passengers and approximately 414,003 tons of freight, an increase of 6,871 passengers and 45,907 tons of freight over the amounts of the preceding year.

The company has under consideration plans for the construction of an additional large steamer to meet the growing traffic. Honolulu is the home port for most of these steamers, the distances from which to other ports range up to 250 miles. Fares range up to \$13 per passenger, according to distance.

TRAFFIC BETWEEN HAWAII, THE MAINLAND, AND MEXICO.

Five steamship companies are engaged in this traffic. The American-Hawaiian Steamship Company, with headquarters in New York, has withdrawn from direct service between the Territory and San Francisco, that traffic being met more fully now by the Matson Navigation Company. The former company continues to handle most of the traffic between the Territory and the Atlantic coast, by

way of the Tehuantepec National Railway through Mexico. No steamers have been dispatched during the year by this company by way of the Strait of Magellan. This line connects at Puerto Mexico on the Atlantic side with eight steamship lines plying regularly between that port and the principal European and South American ports and with five steamship lines on the Pacific side, thus affording excellent facilities for through traffic between the Territory and foreign ports. This company has two services: (a) A triangular 12-day service between Hawaii, Salina Cruz, San Francisco, and Puget Sound, with six large steamers, each of 12,500 tons dead-weight capacity. From six to eight smaller steamers operate between Puerto Mexico, Philadelphia, and New York on a 6-day schedule. These, in connection with the steamers on the Pacific side, provide an ideal service. The line carries, besides minor products, about 260,000 tons of sugar a year to Philadelphia and New York and large quantities of merchandise in return. (b) A Pacific coast triweekly service with four steamers between Salina Cruz and Pacific coast ports as far north as Seattle and Tacoma, making connections with the triangular service above described.

The Matson Navigation Company's rapidly growing fleet of steamers, now six in number, is doing much to improve transportation facilities between Hawaii and the Pacific coast. Two freight steamers of 3,500 to 4,000 tons run between island ports, San Francisco, and Puget Sound on a 42-day schedule; two freight steamers of 6,000 tons, with limited accommodations for passengers, run between island ports and San Francisco on a 28-day schedule; one steamer of about 4,000 tons, with limited passenger accommodations, runs between Hilo and San Francisco on a 25-day schedule. The sixth steamer, the *Wilhelmina*, which was added during the year, with a freight-carrying capacity of 7,000 tons and accommodations for 150 first-class passengers and 200 steerage passengers, runs between San Francisco, Honolulu, and Hilo on a 28-day schedule. Several of these steamers are equipped for handling fresh fruit and ice-house goods. Fares on these steamers range from \$65 upward one way and from \$110 upward for a round trip. A new steamer, the *Honolulan*, will be added during the present year, to be operated by this company, but constructed by the American-Hawaiian Company.

The Oceanic Steamship Company operates one steamer between Honolulu and San Francisco on a 3-week schedule, with accommodations for 140 cabin passengers and 75 steerage passengers. This large steamer replaced a smaller one during the year.

The Union Steamship Company operates nine tank steamers and barges between California and Hawaii for the transportation of crude oil.

The Associated Oil Company operates two steamers, two sailing vessels, and one barge in the crude-oil traffic.

A few American sailing vessels continue to carry sugar around Cape Horn.

THROUGH SERVICE.

Besides the United States army transports, which call regularly at Honolulu on their voyages between San Francisco and the Philippine Islands, there are three regular through steamship lines. The Occidental and Oriental Steamship Company has gone out of existence;

one of its two steamers was taken over by the Pacific Mail Steamship Company and the other is employed between oriental ports. During the year the steamer *Cleveland*, of the Hamburg-American Steamship Company, called at Honolulu on each of its two round-the-world excursions.

The Pacific Mail Steamship Company is the only through line engaged in passenger and freight traffic between Hawaii and San Francisco. This company operates six steamers, one of which, however, is under foreign register. The fare on the four larger steamers is \$75, round trip \$135, and on the remaining American steamer \$65, round trip \$110, between Honolulu and San Francisco. These steamers have large passenger accommodations, but they are often practically filled before the steamers arrive at Honolulu on the eastward trips. The company plans to construct two additional large passenger steamers, each with accommodations for from 400 to 500 first-class passengers, of the type of the North German Lloyd steamer *George Washington*. It will require, however, two years or so to build these.

The Toyo Kisen Kaisha continues to operate three steamers between the Orient and San Francisco, two of which are very large and superior in every way. This company operates also three steamers on a South American line.

The Canadian-Australian Steamship Company operates four steamers between Vancouver and Australia, one reaching Honolulu each way monthly. The fare to Vancouver and also to San Francisco by steamer and rail is \$75, or, with stop-over privileges, \$80. A large new steamer, the *Zelandia*, has recently been added to replace one of the older vessels.

The Balfour line, a British company, has announced that it will commence a regular steamship service in October between European and Pacific coast ports by way of Honolulu.

A few sailing vessels continue to bring general merchandise from Europe, coal from Australia, and nitrates from South American ports. These are mostly foreign vessels. A few small American sailing vessels are engaged in carrying lumber, railroad ties, and other freight between Hawaii and the Pacific coast. In general, the steamship has displaced the sailing vessel.

STEAM RAILROADS.

Island of Oahu.—The most extensive railroad in the Territory is that of the Oahu Railway and Land Company, on the island of Oahu. It has 98.47 miles of main line and branches and extensive terminal facilities, with wharves and warehouses at Honolulu. It runs from Honolulu along the shore around Pearl Harbor to Kahuku, a distance of about 72 miles, and has a branch line about 12 miles long to the pineapple district on the tableland between the two ranges of mountains. This branch was extended 2.04 miles during the last year in order to reach an additional tract of 6,000 acres of pineapple land. This branch has two subbranches, one on one side through pineapple lands and the other on the other side to the United States cavalry post. During the year the road carried 617,719 passengers, an increase of 123,232 over the number for the previous year, and 531,751 tons of freight, an increase of 115,691. The road connects with over 100 miles of plantation railways along its line.

The Koolau Railway, 11 miles in length, is practically an extension of the above railway, although under a different company.

Island of Hawaii.—The principal railroad on this island, and the only standard-gauge railroad in the Territory, is that of the Hilo Railroad Company, with 46.25 miles of main line and branches. It runs from Hilo in a southerly direction 9 miles to the Olaa sugar mill, where it branches, one branch running to the 22-mile station on the Volcano road and the other into the district of Puna. Four and one-half miles of a branch in Puna to a sawmill were rebuilt during the year. The main Puna line is being extended several miles from Kapoho to Malama, in order to connect with another sawmill. The road carried during the year 77,074 passengers, an increase of 1,750 over the number for the previous year, and 189,796 tons of freight, an increase of 71,145.

This road was constructed into an undeveloped country, and an extension greatly needed for many years is now about to be constructed in a northerly, or opposite, direction from Hilo through one of the largest cultivated regions in the Territory. Construction is well along on the first section, 14 miles in length, and financial arrangements have recently been made for continuing construction 24 miles farther. Construction through this region is difficult and very expensive on account of the large number of gulches and canyons. The bridges are being made of concrete as far as practicable, but there will be a number of high steel bridges.

Although this railway has a pier wharf 800 feet long and 100 feet wide at Hilo, it is necessary to lighter freight to the larger vessels; but, now that the breakwater has been constructed for a considerable distance, the company proposes soon to erect a wharf near the land end of the breakwater at which the largest steamers may dock.

The Hawaii Railroad Company has 20 miles of track, running from the port of Mahukona through the district of North Kohala.

The Kona Railroad Company has 10 miles of track in the district of Kona.

Congress has recently ratified a franchise granted by the last territorial legislature for a new railroad through the district of Kona and the adjoining district of Kau.

Island of Maui.—No extensive changes have been made in the line of the Kahului Railroad Company, 15.6 miles in length, which runs from the port of Kahului to Wailuku in one direction and to Paia in the other, thus connecting east and west Maui. This road connects with more than 100 miles of plantation railroads. The company has recently constructed a new wharf for interisland steamers at Kahului; and, now that Congress has provided for the further development of this harbor, already partially developed by this company, the company proposes to construct a wharf for the accommodation of vessels of all sizes and thus make lightering unnecessary.

Island of Kauai.—The Kauai Railway Company operates 8 miles of track from Port Allen (Hanapepe Bay) through the McBryde sugar plantation to the village of Koloa in one direction and about a mile of track in the other direction, the latter connecting with the tracks of another sugar plantation. During the year an extension was made to a lime quarry at Koloa, where lime will be manufactured for the use of the plantations on that side of the island. A short branch inland to a homestead district was completed. About 3½ miles of extension were constructed during the year.

The gross receipts of all offices were \$173,249.12. The expenditures were: Compensation of postmasters, \$44,279.25; of clerks, \$42,970.34; rent, light, etc., \$2,974.05; city delivery service, \$17,038.52; special delivery service, \$226.48; total, \$107,488.64, expended through post-offices in Hawaii, besides cost of mail transportation service, \$97,123.20, and estimated proportion of cost of division of post-office inspectors, \$5,000, making a grand total of \$209,611.84, or \$36,362.72 more than gross receipts.

POPULATION, IMMIGRATION, AND LABOR.

In addition to the general census there were made at the same time and under the same general direction the investigation of labor conditions required by the organic act to be made every five years, and also a military census of the Territory and a social census of the city of Honolulu. The results of these are not yet available, except the general enumeration by races, which is shown by the following table:

Population.

Race.	1900.	1910.	Increase.	Decrease.	Per cent increase.	Per cent decrease.
Hawaiians.....	20,787	20,099	.....	3,688	.....	12.42
Part-Hawaiians.....	7,648	12,485	4,637	.....	59.08	.....
Portuguese.....	15,676	22,294	6,619	.....	42.23	.....
Spanish.....	.....	1,962	1,962	.....	New.	.....
Porto Ricans.....	.....	4,628	4,628	.....	New.	.....
Other Caucasians.....	10,577	14,684	4,107	.....	38.83	.....
Chinese.....	25,762	21,698	.....	4,064	.....	15.77
Japanese.....	61,115	79,663	18,548	.....	30.35	.....
All others.....	3,237	8,196	4,959	.....	153.20	.....
Total.....	154,001	191,909	45,660	7,752	29.65	5.90
Net increase.....	.....	.....	37,908	.....	24.62	.....

The census this year was taken in much greater detail as to nationalities than was that of ten years ago, when the classification was such as not only to be somewhat obscure in itself, but also to make comparisons difficult. The foregoing is about as close a comparison as can be made under the circumstances. The Part-Hawaiians for 1910 include 8,773 Caucasian-Hawaiians and 3,712 Asiatic-Hawaiians, the former being much more than double the latter; the increase in Part-Hawaiians is much greater than the decrease in pure Hawaiians. The Spanish and Porto Ricans are new elements in the population. The percentage increase in Portuguese has been large as has also that in other Caucasians, comprising mainly Americans, British, and Germans. While the largest single absolute increase is in Japanese, the total increase in Orientals is less both absolutely and in percentage than in non-Orientals. The number under "All others" is made up chiefly of Koreans and Filipinos, and includes also 687 blacks and mulattoes. The net increase in the entire population is 37,908 or 24.62 per cent. The population of the city of Honolulu is probably upward of 50,000, as compared with 39,300 ten years ago. Reported births in the Territory during the year numbered 4,302 and deaths 2,912.

While departures of Japanese considerably exceed arrivals, Japanese births are numerous. During the last ten years the number of

Japanese pupils in the schools has increased from 1,352 to 7,078. Very few Japanese born in the Territory, however, have reached the voting age; more Chinese have reached this age. Both Japanese and Chinese are desirous of establishing their Hawaiian birth. For some years past the secretary of the Territory has issued Hawaiian birth certificates under territorial laws after careful investigation of the facts. During the last year there were issued 1,098 for Chinese and 3,475 for Japanese, a total of 4,573 of all ages, but mostly minors. Among the Japanese these are mostly males; among the Chinese the larger number is of females. The Portuguese are increasing rapidly, and many have reached the voting age.

The following table prepared as accurately as possible from all available data, both official and unofficial, shows the arrivals and departures of Japanese, Chinese, and Koreans, by adult males, adult females, and children, during the ten years from the establishment of territorial government on June 14, 1900, to the end of the last fiscal year, June 30, 1910. During a portion of this period, however, the Japanese children are included in the figures for adult males and adult females, thus making the figures for the children lower and those for the males and females correspondingly higher than they ought to be for the period. These show an excess of 2,235 in arrivals over departures of Japanese, and since the census shows a total increase of 18,548 in Japanese apparently there has been an increase of 16,313 through excess of births over deaths in the Territory. In the case of the Chinese there was an excess of 10,338 in departures over arrivals, and since the census shows a net decrease of 4,064 the total decrease has apparently been offset to the extent of 5,274 through excess of births over deaths in the Territory. There was an excess of 5,321 in arrivals over departures of Koreans, but as the census does not enumerate the Koreans separately it does not appear what the excess has been of births over deaths in the Territory. The excess of births over deaths among the Japanese and Chinese is based on the assumption that the census was equally accurate in 1900 and 1910. The birth and death rates of Orientals in Hawaii, especially Japanese, is affected abnormally by the disproportionate number of males (which tends to a lower percentage birth rate), by the disproportionate number of adults of both sexes in the prime of life (which tends to lower the death rate and increase the birth rate) and by the remarkably large percentage of married females (which, of course, tends to increase the birth rate).

Arrivals and departures of Orientals, at Honolulu, from June 14, 1900, to June 30, 1910.

	Japanese.				Chinese.			
	Male.	Female.	Children.	Total.	Male.	Female.	Children.	Total.
Arrivals.....	61,026	15,875	520	77,421	3,363	155	62	3,580
Departures.....	57,966	11,204	6,016	75,186	11,679	1,003	1,236	13,918
Net loss or gain by migration.....	3,060	4,671	-5,496	2,235	-8,316	-848	-1,174	-10,338
Net loss or gain by census.....				18,548				- 4,064
Difference.....				16,313				5,274

Arrivals and departures of Orientals, at Honolulu, from June 14, 1900, to June 30, 1910—Continued.

	Koreans.				Total.			
	Male.	Female.	Children.	Total.	Male.	Female.	Children.	Total.
Arrivals.....	6,822	619	161	7,602	71,211	16,649	743	88,603
Departures.....	1,959	167	164	2,280	71,604	12,364	7,416	91,384
Net loss or gain by migration.....	4,863	452	-3	5,322	-393	4,285	-6,673	-2,781

A year ago a special income tax was imposed of 2 per cent upon incomes over \$4,000, three-fourths of which was to be used for immigration purposes. The chief object was to encourage immigration other than oriental.

By means of this fund in December, 1909, the territorial board of immigration introduced 868 Portuguese, comprising 337 men, 221 women, and 310 children, from Madeira and the Azores at a cost of about \$80,000. Recent investigations show that these people are faring well and are satisfied with their new conditions.

The number of immigrants available from Madeira and the Azores having been found insufficient at that time, owing to the prevailing prosperity there and the inducements offered by Brazil, attention was turned to Russians in Siberia and Manchuria, many of whom, it was understood, had been assisted to those countries from the Ural region in European Russia, but had not found conditions there satisfactory. Accordingly 255 Russians, comprising 109 men, 67 women, and 79 children, were introduced in October, 1909. These proved so satisfactory and the need of additional laborers was so great that 1,535 more, namely, 815 men, 333 women, and 387 children, were introduced in February, March, April, and May, 1910. Of these 17 have been returned. Several of these lots declined at first to accept employment, claiming that conditions had been misrepresented. Diphtheria, brought with them, broke out and they were quarantined several weeks. Investigations showed that no material misrepresentations had been made and that their claims were the result of instigation by agitators. Most of them finally went to work, some on the plantations, some in the lumber mills, some on railroads, and others in various other lines. The total cost of bringing the 1,790 Russians was \$130,021.52, besides quarantine expenses at Honolulu, amounting to \$17,735.79. A number of these Russians have gone to the Pacific coast, a few of whom have returned, finding conditions there no more favorable than here. One of the difficulties in the way of retaining laborers in Hawaii consists in the inducements offered in various lines on the Pacific coast during certain seasons lasting only a few months. The laborers then find themselves in straitened circumstances and complain to charitable organizations and thereby tend to produce prejudice against immigration to Hawaii and conditions in Hawaii. The Russians are probably the best immigrants ever brought to Hawaii and rank higher than most of the immigrants from Europe to the eastern States. As it turned out, probably greater care should have been taken to avoid obtaining those who

were not agriculturists, and it would have been better to have introduced them more gradually.

Action has been taken since the close of the fiscal year to obtain additional Portuguese from Madeira, the Azores, and Portugal, the immigration of this race having proved successful, although the number desirous of emigrating to these islands is limited.

An important step has now been taken by the employment by the board of immigration of Victor S. Clark, of the federal bureau of labor, to take charge of the work of the board, with a view to putting that work on a more permanent and scientific basis.

The strike on the island of Oahu, involving 7,000 Japanese laborers, which began before the close of the preceding fiscal year, ended early during the last fiscal year. Several Japanese, who were mainly responsible for this strike but who were not laborers themselves, were convicted of conspiracy and imprisoned but have since been pardoned, and now the relations between the Japanese laborers generally and their employers are very satisfactory.

PUBLIC LANDS.

AMENDMENTS OF LAND LAWS.

The laws relating to public lands in Hawaii were amended in many important respects by an act of Congress approved May 27, 1910. These amendments are the result of careful study extending over the preceding two years, and were unanimously recommended to Congress by the territorial legislature at a special session called for the purpose last November. They mark the beginning of a new era in public land matters in Hawaii. The principal changes will be set forth in connection with their respective subjects below.

ADMINISTRATION.

The amendments provide for the consolidation of the administration of public lands under one department, namely, that of public lands, such administration having previously been vested in part in the departments of public works and public instruction. They provide also that lands required for forestry or other public purposes shall be set aside, or transferred to other departments, for such purposes by direction of the governor, and similarly transferred back to the department of public lands when necessary for purposes of sales or other dispositions, thus rendering definite the status of all lands, the status of some of which was previously uncertain by reason of the indefiniteness of the descriptions of the classes of lands under the respective departments. The amendments also authorize the land commissioner to prescribe forms of oaths and to perform all other necessary acts and, with the approval of the governor and a land board created by the amendments and appointed by the governor with the consent of the senate, to make necessary and proper rules and regulations.

Some of the beneficial results expected from consolidation have been realized during the year through the appointment, sanctioned by the last legislature, of the same person as head of the departments of public lands, public works and survey. This has resulted in a better coordination of the work of these departments and consequent

greater efficiency and economy. A successful effort, facilitated by such coordination, was made to close up by the end of the year practically all unfinished business. This was desirable in itself and particularly at this time in order to be prepared for the great increase in work which the amendments will necessitate. Since the enactment of the amendments there have been prepared a compilation of the land laws as changed, a pamphlet of information, and numerous new forms.

HOMESTEADING.

The most important amendments relate to this subject. The chief difficulty hitherto has resulted from the temptation to take up land ostensibly for homesteading, but really for speculation or investment. The amendments aim to prevent this by imposing additional restrictions both as to who may take homesteads and as to their powers of alienation whether before or after a patent is obtained. The taking of a homestead is forbidden to a person who or whose husband or wife shall previously have taken one or shall then own other land in the Territory the combined area of which and the land in question exceeds 80 acres, or who is an alien unless he has declared his intention to become a citizen, in which case he must complete his citizenship within five years. In other words, the amendments prevent repeating, they prevent the land from going to persons who already have sufficient for a homestead, and they prevent it from going to aliens. After a homestead has been taken, neither the land nor any interest therein or control thereof can, except in certain cases, at any time, whether before or after a patent is obtained, be in any way transferred to or held by or for the benefit of any alien, or any corporation, or any person who owns or controls directly or indirectly other land the combined area of which and the land in question exceeds 80 acres. On the other hand the amendments permit the times for compliance with homestead conditions to be extended in proper cases, and also require that homesteads shall be offered by drawing or allotment, and not, as hitherto, by sale at auction or by standing in line. The amendments also require the commissioner of public lands to cause homesteads to be surveyed and opened in the various parts of the Territory, and particularly, subject to certain qualifications, requires him to open sufficient land in any particular district when requested by 25 or more persons; at the same time they provide the necessary funds for surveying and opening lands for homestead purposes on a more extensive scale by making available for this purpose the proceeds derived from sales and leases of public lands.

Already numerous applications for opening lands have been received. Lots previously surveyed have in many cases been resurveyed, and subdivided when too large, and new lots also have been surveyed, with the result that already a drawing has been advertised for 1,026 lots, distributed over the five principal islands, containing in the aggregate 29,989.05 acres and appraised at \$141,230.34. The appraisements are generally made at a third or less of the actual value in view of the requirements of residence and cultivation. The area varies, according to the location and character of the land, from a fraction of an acre to 80 acres per lot. Applicants are given the choice not only of lots in the order of their assignment, but also of the four methods by which a lot may be homesteaded. These are the home-

stead lease, right of purchase lease, cash freehold agreement, and special homestead agreement methods. These were described in my last report. They contain varying conditions as to payment, residence, and cultivation. The sales for homestead purposes during the year were as follows:

Lands disposed of for homestead purposes, fiscal year 1910, by classes.

Tenure.	Number.	Area.	Average area per lot.	Value.	Average value per acre.
		<i>Acres.</i>	<i>Acres.</i>		
Homestead leases.....	57	141.85	2.48		
Right-of-purchase leases.....	10	299.98	29.99	\$502.80	\$1.67
Cash freehold agreements.....	2	13.07	6.53	22.65	1.73
Special agreements.....	95	1,809.47	19.05	34,423.00	19.02
Total.....	164	2,264.37	13.81	34,948.25	16.46

Of these, 11 were to Americans, 35 to Portuguese, 104 to Hawaiians, and 14 to others.

Lands disposed of for homestead purposes since the passage of the land act of 1895.

BY CLASSES.

Tenure.	Number.	Area.	Average area per lot.	Value.	Average value per acre.
		<i>Acres.</i>	<i>Acres.</i>		
Homestead leases.....	395	3,051.68	7.73		
Right-of-purchase leases.....	1,105	61,443.06	55.78	\$337,090.04	\$5.58
Cash freehold agreements.....	139	3,956.65	28.46	49,318.77	12.47
Special agreements.....	591	20,955.26	35.45	253,059.35	12.07
Total.....	2,230	89,406.67	40.09	639,468.16	7.40

BY RACES.

Race.	Number.	Area.	Average area per lot.	Value.	Average value per acre.
		<i>Acres.</i>	<i>Acres.</i>		
American.....	450	26,618.78	59.15	\$244,652.31	\$9.19
Hawaiian.....	1,024	28,858.80	28.18	138,149.25	4.78
Portuguese.....	514	18,098.67	35.21	156,995.80	8.67
Others.....	242	15,830.42	65.41	99,670.80	6.29
Total.....	2,230	89,406.67	40.09	639,468.16	7.15

In the above table the "Average value per acre" does not include the number and area of homestead leases, of which there are 379 for Hawaiians, with an area of 2,942.61 acres; 15 for Portuguese, with an area of 108.50 acres; and 1 for a German, with 0.57 of an acre.

LEASES AND LICENSES.

The amendments place a check upon the leasing of lands by providing that no lease of agricultural land exceeding 40 acres in area, or of pastoral or waste land exceeding 200 acres in area, shall be

made without the approval of two-thirds of the land board. Leases of agricultural land may be made for not exceeding fifteen years and of pastoral land for not exceeding twenty-one years, and every such lease contains a provision that the whole or any part of the land may be withdrawn at any time for homestead or other public purposes. Many of the lands are valuable and yield large rentals, but the policy of leasing them until they are required for homestead or other purposes is justified by even more important considerations than that of revenue. It encourages industries, aids in the development of the Territory, and by enabling those who have sufficient capital to improve the lands by reducing them to cultivation, constructing irrigation works, and otherwise prepares them for homesteading or further leasing at increased rentals.

During the year 51 general leases were made for terms of from one and a half to twenty-one years, with an aggregate area of 9,809 acres and an aggregate annual rental of \$15,530, as compared with the same number of leases covering 18,178.57 acres at rentals aggregating \$11,779.50 for the previous year. One water license, covering the land of Honomanu, in the district of Koolau, on the island of Maui, was made for a term of ten years, at a rental of \$22,500 a year. Two timber licenses were issued, one covering 450 acres, at \$6 per acre, and the other 12,000 acres, at \$5 per acre, payable in installments, on the land of Kaohe, in the district of Puna, on the island of Hawaii. A right of way for a ditch over certain public lands in Hamakua, Hawaii, was granted to an irrigation company in return for 500,000 gallons of water daily for public uses and settlement purposes.

The rentals from all general leases and water and timber licenses under the public lands department amounted to \$230,964.31, an increase of \$58,259.53 over the amount for the preceding year. The increase for the preceding year was \$61,748.25 over the amount for the year before that.

Under the public works department the rentals amounted to \$27,011, an increase of \$2,599.20, and under the public instruction department the rentals amounted to \$96.

EXCHANGES.

The amendments limit the power to exchange public lands for other lands by providing that no exchange shall be made by which the Territory shall convey lands exceeding 40 acres in area or \$5,000 in value, or without the approval of two-thirds of the land board, or except to acquire lands directly for public uses. The amendments also settle the status of land acquired by exchange by providing that it shall have the same status as if it had previously been public land.

It has been felt for some time that the acquisition of lands by exchange was not satisfactory in all respects, and accordingly the last legislature provided that, instead of acquiring such lands by exchange, they might be acquired by selling the lands proposed to be given in exchange and using the proceeds for the purchase of the lands desired. This method has proved very satisfactory during the last year. A number of pieces have been sold for this purpose, and few direct exchanges have been made. Such sales were made of 44 pieces, aggregating 703.51 acres, upon which \$23,140.63 has been paid, several of the lots having been sold on installments. Similar sales

were made of 24 pieces, aggregating 8.80 acres, for \$39,609, by the public works department.

Of the total of \$62,749.63 thus realized, \$48,624.60 was expended in the purchase of 10 pieces aggregating about 36 acres. Of this, \$36,053.50 was for two pieces of land for the college of agriculture, \$9,450 for two school sites, and lesser amounts for one reservoir site and five pieces for roads.

Five small pieces, aggregating 15.65 acres, were conveyed in exchange for five other pieces, aggregating about 17 acres, desired chiefly for road purposes. One piece of 81.5 acres of pastoral land was exchanged for a large number of pieces of agricultural land required for the use of the boys' reformatory school. One piece, containing 66.67 acres, mainly of agricultural land, was conveyed for homestead purposes in exchange for certain pieces of land desired for school and other purposes. Two tracts, aggregating 50.10 acres, of agricultural and waste land, were conveyed in return for several pieces required for a park, stables, and school site at Wailuku on the island of Maui.

Two large exchanges were made. In one case the conveyances were made merely to complete an exchange arranged for the year before, by which 1,358.75 acres of land, about two-thirds of which was suitable for sugar cane, but for which the government had no water for necessary irrigation, were conveyed for 1,777 acres of land with ample rainfall and suitable for homestead purposes, and 1,000,000 gallons of water daily for domestic purposes, at Kalaheo, on the island of Kauai. In the other case the Territory conveyed 1,290.2 acres—a little more than half of which has been in cane and which requires irrigation—for a number of pieces containing in the aggregate nearly 3,000 acres, mainly homesteading land, at Kapaa, on the island of Kauai, and a tract of land in Honolulu required for the college of agriculture. This exchange seemed desirable, not only in order to acquire a large area of land suitable for homesteading, but also in order to consolidate a number of public lands which were sandwiched in with private lands, and in order to facilitate the development and use of water on these lands.

Under the public works department, 18 pieces, aggregating about 38 acres, were exchanged for 17 pieces aggregating about the same area, of which one piece was for school and 16 pieces were for road purposes.

SALES.

The amendments place further limitations upon the power of sale by providing that no land shall be sold for other than homestead purposes, except for residence purposes, in lots not exceeding 3 acres in area, and necessary areas for railway, irrigation, factory, mercantile, hotel, church, private school, and various other purposes, and that in such cases the sales shall not be made without the approval of the land board. They also permit a preference right to purchase at an appraised value to be given in certain cases to a person who has improved any parcel of land and resided thereon continuously since the passage of the organic act, and also permit conveyances to be made to church or religious organizations of lands continuously occupied by them as church sites for not less than five years previously to the passage of the amendments.

Besides the lands disposed of as homesteads and by way of exchange and for the purchase of other lands in lieu of exchange, as above set forth, there were sales of 54 pieces, aggregating 437.15 acres, at prices aggregating \$8,457.40. The majority of these were small pieces of taro land of about an acre each, to be used in connection with residence lots, a few were residence lots and a few were cemetery, school, and church sites. Sales of all kinds under this department amounted to \$71,876.18, as compared with \$48,807.84 for the preceding year. There were also sales under the public works department to the amount of \$40,713, as compared with \$5,603 for the preceding year. Under the public works department, besides the sales and exchanges above referred to, five pieces were sold for an aggregate of \$1,104.

Fifteen patents were issued on land commission awards, 14 on exchanges, and 144 in other cases in the public lands department, and 7 on exchanges and 26 in other cases in the public works department.

COMMUTATIONS.

In pursuance of an act of the last legislature, steps have been taken for settling the so-called "commutations," that is, obligations to pay to the government one-third or one-quarter of the unimproved value of certain lands as they were at the time when land-commission awards were issued for them about sixty years ago. This has involved a vast amount of research work in order to ascertain in what cases commutation was due, make the appraisements of the former values of the lands, obtain the necessary descriptions and present ownerships, and so forth. Notice to the holders of the lands has been advertised in compliance with the law, and steps will now be taken for the enforcement of the liens created by the statute in cases in which commutations are not paid voluntarily. The notice covered 270 cases, in which the commutations aggregated \$11,243.87. Since then 74 cases have been settled. There remain now 196 cases in which the commutations aggregate \$7,601.92.

TRANSFERS FOR PUBLIC PURPOSES.

The amendments to the organic act provide that public land, after it has been taken over for the purposes of the Federal Government by direction of the President or the governor, may be restored to its previous status by direction of the President; also, that the title of any public land in the possession and use of the Territory or required by it for public purposes may be transferred to it by direction of the President, and that the title to any property so transferred may be further transferred to any city, county, or other political subdivision of the Territory by direction of the governor when authorized by the legislature. It will be remembered that the title to the public lands is in the United States, but their management and disposal in the territorial government.

As to transfers between the various departments of the territorial government, which the amendments require shall hereafter in all cases be made by order of the governor, an abandoned school lot in Honolulu, containing 8,190 square feet, was transferred from the department of public instruction to that of public works for use by the Honolulu fire department, and two forest reserves, aggregating 872 acres, were created and thereby transferred to the bureau of agriculture and forestry.

REVENUES AND DISBURSEMENTS.

The expenditures of the public lands department for the year were \$14,161.08, which is \$6,121.47 less than for the previous year. The receipts were \$315,923.03, an increase of \$82,868.30.

Receipts of public lands department.

Rents:	
General leases.....	\$230,964.31
Right-of-purchase leases.....	6,607.31
Olaa leases.....	219.36
Kaimu leases.....	35.03
	\$237,826.01
Interest and fees:	
Homesteads.....	124.95
Special agreements.....	1,298.42
Cash freeholds.....	744.47
Office fees.....	458.00
Patent fees.....	570.00
	3,195.84
Sales:	
Right-of-purchase leases.....	14,468.80
Homesteads.....	445.81
Special agreements.....	14,256.46
Cash freeholds.....	7,162.98
Government commutation.....	566.25
Cash sales.....	11,835.25
	48,735.55
Government realizations.....	1,588.75
Settlers' realizations (improvements).....	1,436.25
Special land sales, act 55, Territorial Session Laws 1909.....	23,140.63
	315,923.03

Of the receipts from sales under this department, \$40,462.45 was turned into the sinking fund for territorial bonds, \$23,140.63 was set aside for the purchase of other lands required for public purposes, and \$8,273.10 was set aside for the construction of homestead roads.

Under the public works department, special sales were \$39,609 (for the purchase of other lands required for public purposes); other sales, \$1,104 (turned into the sinking fund); rents, \$27,011; patent fees, \$130. Under the public instruction department, rents were \$96.

KILAUEA NATIONAL PARK.

Kilauea, said to be the largest active volcano in the world, is situated at an elevation of 4,000 feet on the belt road around the largest island, Hawaii. It is on the slope of Mauna Loa, which also has a crater, occasionally active, at its summit, nearly 14,000 feet high. Near Kilauea there are a number of deep, picturesque pit craters; also sulphur banks, lava tree molds, forests of tree ferns, and other objects of interest. On its rim there is a hotel, from which to the lake of lava, a distance of 7 miles by a scenic route, the Territory has recently constructed an automobile road. Preliminary steps have been taken for the establishment and maintenance of a volcano and earthquake observatory there. This volcano is one of Hawaii's chief attractions for tourists.

The creation of a national park, to include Kilauea and some of the surrounding country, has been discussed more or less for several years. There seems to be a general agreement in the Territory

that that should be done. The park might well include also the summit crater of Mauna Loa and a strip for a roadway between the two craters.

The summit crater and part of Kilauea are on public lands, and negotiations have been begun to ascertain what arrangements can be made for the acquisition of necessary adjoining private lands. A survey has been ordered for the purpose of definitely locating the several pit craters and other objects and determining the best bounds for the proposed park.

An act of Congress is desired for the creation of the park.

SURVEY.

A successful effort has been made to complete all pending work by the end of the fiscal year, and especially in the preparation of surveys and descriptions for patents and homestead agreements required to enable the land department to bring its work up to date. The impetus given to homesteading by the recent amendments made by Congress to the Hawaiian land laws will necessitate a large increase in the work of this department, and at the same time the necessary funds have been provided by making available for the survey and opening of land for homestead purposes the proceeds of sales and leases of public lands. Owing to the contour and character of the land, each homestead lot must be carefully surveyed, the area and shape of each varying according to the circumstances; at the same time, roads must be laid out with proper grades; often, also, the land is covered with dense vegetation, making access difficult. Thus the work of surveying is very large in comparison with the surveyed areas, but with past work brought up to date and with ample means the department expects to do a large amount of surveying during the coming year in order to meet the increased demand for homesteads. For topographic and hydrographic surveys, see heading "Public works."

OFFICE WORK.

Fourteen sets of maps of 50 homestead tracts have been prepared for distribution among the land agents for exhibition to persons on the different islands desiring homesteads. There have been furnished descriptions of surveys with sketch plans attached of 519 lots in 36 homestead tracts, 117 descriptions and plans of miscellaneous surveys, 52 tracings, 1,837 blueprints, and 293 published maps. Eleven land surveys and plans have been examined and reported upon for the court of land registration. A list of unpatented land commission awards, which are subject to government commutation, has been compiled and the commutation appraised. A map of the district of South Kona, Hawaii, showing awarded and patented lands and the status of unsettled boundaries, has been completed. The time service has been continued, chronometers rated, and an automatic tide gauge kept. Descriptions of surveys and plans for land exchanges, irrigation schemes, and railroad rights of way have been examined and reported on, and information of various kinds has been furnished to the United States engineers, United States Geological Survey, and others.

FIELD WORK.

The following is a brief description of most of the field work:

Island of Hawaii.—Hilo district: The land of Kihalani was partially subdivided into homestead lots.

Kohala district: The Puuepa-Kokoiki and Ahualoa-Haena lands were partially subdivided for homestead purposes.

North Kona district: The boundaries of the land of Kau, extending from the sea to an elevation of 3,000 feet and inclosing an area of 1,516 acres, were examined preparatory to a decree by the boundary commissioner.

Kau district: A detailed survey and title study were made of the Kaŋaoa lands, containing 3,000 acres, and a portion was subdivided into 88 homestead lots, aggregating 1,620.5 acres.

A detailed survey of Waiohinu village was made, establishing all original titles, and remnants were laid out into 42 house lots of about an acre each, and a tract of 60 acres, suitable for the cultivation of taro, was subdivided into 50 lots.

Two lots in the Kiolokaa-Keaa tract were subdivided into 8 lots aggregating 333.8 acres.

A lot containing 31 acres of the Kaunamano tract was laid out for county purposes, and reservoir sites and lots used for laborers' quarters were surveyed.

Island of Maui.—Portions of the Lahainaluna school lands aggregating 101.75 acres, to be cultivated in sugar cane, were surveyed.

Remnants in Honuaula, aggregating 2,970 acres, were surveyed; also two school lots containing 4 acres. Remnants in Polipoli and Kapoio, containing 34.78 and 15.32 acres, respectively, and a right of way containing 0.92 acres for a ditch through the land of Kou were surveyed; also a lot for a county park, containing 6.65 acres, and a lot for county stables, containing 1.56 acres, in Wailuku, and the landing at Makena, containing 0.19 acres. The lands of Waiohuli and Keokea, containing 16,000 acres, were classified into forest, agricultural, and grazing lands. Portions of Alae 3 and 4 and Kealahou, containing 404 acres, were resubdivided.

Island of Oahu.—About 50 surveys were made, mostly in the city of Honolulu and vicinity, for public-road improvements, sales of house lots and remnants, and the adjustment of boundaries.

Island of Kauai.—The surface-water survey of the Kapaa, Anahola, and Kamalomalo lands was completed, and various surveys made of reservoirs and reservoir sites, ditches, etc.; also a detailed topographic survey was made of the forest portions of Anahola and Kamalomalo. A number of homestead lots in the Anahola Valley were laid out. Portions of Piwai and Omao are being surveyed for homesteads.

IRRIGATION AND RECLAMATION.

The importance of irrigation, the extent, character, and ownership of irrigation works, the kinds of crops irrigated, and the laws relating to waters in this Territory were set forth in my last report.

During the last year the chief feature of a general nature was the institution of a topographic and hydrographic survey of the islands in cooperation with the United States Geological Survey, made pos-

sible by the special conservation fund created by the last legislature, and now to be facilitated by the action of Congress in authorizing an allotment of federal funds for this purpose. In connection with this an exhaustive study of the artesian wells of the Territory has been made. These subjects are referred to more fully under the heading "Public works."

In public waterworks the principal features were the completion of a \$300,000 reservoir for the Honolulu waterworks and the construction of a \$100,000 pipe line intended chiefly for domestic and live-stock purposes in an agricultural district on the island of Maui. These also are referred to more fully under the same heading.

The principal water license issued was one for the surplus water of a remote canyon on the island of Maui for an annual fee of \$22,500 for a period of ten years, subject to the right of the Territory to take the water for reclamation or other public purposes at any time after two years.

The principal achievement through private enterprise was the construction of the lower Hamakua ditch in the district of Hamakua on the island of Hawaii. The Kohala Mountain is the largest single water source on that large island. Two companies, the control of which is now in a third company, have licenses to take water from this mountain, one from the Territory on one side, the other from the trustees of the Bishop estate on the other side. These are practically the only irrigation companies of considerable size in the Territory, the stockholders in which are not interested also directly or indirectly in the use of the water. They had previously constructed a large irrigation ditch on the Kohala side and a smaller ditch, partly for irrigation and partly for fluming, known as the "Upper Hamakua ditch," on the other side. During the last year not only were 5 miles of an upper ditch, three-fifths of which is tunnel, and a 50,000,000-gallon reservoir constructed on the Kohala side, but a ditch $24\frac{1}{2}$ miles in length, of which 56,932 feet are tunnel, 57,934 feet open ditch, and 6,739 feet flume, was constructed for the lower lands on the Hamakua side. This takes water from an elevation of 1,037 feet in the principal branch of the Waipio Valley and from several smaller branches lower down, brings it out of the valley at an elevation of 985 feet, and conducts it through several sugar plantations. One of the tunnels is the longest in the Territory, namely, 3,312 feet in length. The tunnels are $6\frac{1}{2}$ feet wide at the bottom and the open ditch and flumes 7 feet; the sides of all are 5 feet, and the crown of the tunnels is 7 feet high. The ditch is lined with cement. Its capacity is 100,000,000 gallons daily and its cost was about \$800,000.

Several other large irrigation projects are contemplated by different companies.

INDUSTRIES.

There has been little change of note during the year in the status of the various industries—agricultural, live stock, fishing, and manufacturing—as set forth in my last report. Progress has been general, due largely to the application of scientific methods. The principal industries are naturally agricultural; manufacturing is chiefly incidental, though important. The lines of progress in several of these are set forth to some extent under the heading "Federal experiment station;" see also "Bureau of agriculture and forestry."

Sugar continues king. The output for the last crop year, ending September 30, 1909, exceeded that of any preceding year, aggregating 535,156 short tons, an increase of 14,033 tons. The exports for the fiscal year 1910 were valued at \$42,625,474, as compared with \$37,632,758 for the preceding year. This industry began in 1835. It was given its first marked impetus by the reciprocity treaty of 1876, when the crop was about 13,000 tons, and its second by annexation in 1898, when the crop was about 229,000 tons. The crop of 1901, the first year after the establishment of territorial government, amounted to 360,000 tons, while, as already stated, that of 1909 amounted to 535,156 tons. The crop for the season now closing is 518,127 tons, a decrease of 17,029 tons. Experiments in sugar beets have recently been made on the island of Lanai with some prospects of success. Hitherto production has been confined to cane sugar.

During the year the planters brought in 2,651 Filipinos, consisting of 2,441 men, 179 women, and 31 children, as laborers. The percentage of non-Asiatic laborers continues to increase. In 1899 it was 12 per cent; in 1908, 19 per cent; on March 31, 1910, it had increased to 24 per cent. On that date the laborers aggregated 44,048, as follows: Americans, 614; Russians, 103; Spanish, 579; Portuguese, 3,752; Hawaiians, 1,139; Porto Ricans, 1,941; Filipinos, 2,096; Japanese, 28,832; Chinese, 2,861; Koreans, 1,787; others, 344.

Sugar production (short tons), crop years ending September 30.

Island.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
Hawaii	170,665	122,865	126,405	137,750	143,891	180,159	172,341	159,856
Maul	84,776	77,985	100,834	102,960	104,772	122,629	134,605	139,454
Oahu	121,066	102,019	123,095	113,750	119,273	137,013	138,423	128,648
Kanal	61,484	64,606	76,314	74,753	72,081	81,322	89,787	90,160
Total	437,991	367,475	426,648	429,213	440,017	521,123	535,156	518,127

The rice crop, which is the second in value, is consumed mostly in the Territory. This, more than any other crop, would be the mainstay in case of a siege. It is raised chiefly by Chinese in terraces flooded with water on the low lands, which are leased at rentals of from \$10 to \$50 per acre per annum. There is probably little additional available land for this crop, but much room for improvement in methods of cultivation. These improvements are now being made, chiefly as a result of the work of the federal experiment station. The present yield is about 2½ tons per acre per annum (2 crops). The milling of rice involves several processes and yields various by-products, such as broken grain, bran, middlings, and hulls.

Coffee cultivation began as early as 1817 and has since had its ups and downs. The better prices realized of late years have given it somewhat of a stimulus. The crop this year promises to be 2,000 tons. The price is from 11 to 13 cents a pound. A large part of this product is consumed in the Territory. There are probably not more than 10,000 acres cultivated.

The pineapple industry has made the greatest progress among the newer industries, the output having increased from 1,200 cases of two dozen cans each in 1900 to 510,000 cases in 1909. It is put up in sliced, crushed, and grated forms. There are now invested in the industry more than \$2,000,000, and about 6,000 acres are under

cultivation. During the last year there has been exported an unusually large amount of the fresh fruit, about 1,600 tons, but practically without profit owing to imperfect marketing arrangements. The most marked feature in this industry during the year was the organization of a company to put up in attractive bottles the pure juice in much the same manner as grape juice.

The first extensive tapping of rubber trees for purposes other than experimentation is expected to take place this year.

The tobacco and cotton industries are the newest among agricultural industries that promise to have a large growth. The tobacco industry is the more advanced of the two. There are now four plantations on the island of Hawaii, two in the district of Kona, one in Hamakua, and one in Hilo. One of these companies, the Kona Tobacco Company (Limited), raised a crop of 35,000 pounds in 1909, and 350 bales were shipped during the last fiscal year. This company expects to harvest about 450 acres during this year, of which 80 per cent will be Sumatra and the remainder Cuban leaf. About \$100,000 has been invested in this industry. The companies purchase crops from small planters for curing purposes besides raising crops of their own. In the district of Kona the crop is raised between 500 feet and 2,500 feet elevation. There are about 30,000 acres suitable, at rentals ranging from \$3.50 to \$8 per acre, there being very little land available for purchase. The yield runs from 700 to 1,400 pounds per acre, and under favorable conditions two crops may be raised in a year. The quality is good.

The principal varieties of cotton are the Sea Island, Caravonica, and Egyptian. The production is heavy and the quality superior. This industry is referred to more fully under the heading "Federal experiment station."

BUREAU OF AGRICULTURE AND FORESTRY.

GENERAL.

This bureau, being the main channel through which the territorial government operates in the conservation of natural resources, is the largest single beneficiary of the one-quarter of the proceeds of the special income-tax fund created a year ago devoted to the conservation of natural resources, the other three-quarters of which are devoted to immigration. Of the one-quarter, there has been allotted to this bureau \$3,500 a month besides amounts aggregating \$23,500 for replanting portions of two tracts of land set aside as forest reserves. There were actually expended from the conservation quarter of this fund during the fiscal year \$42,852.81 for the general work of this bureau, \$26,977.75 toward a topographic and \$9,611.35 toward a hydrographic survey under the department of public works, \$5,899.89 in aid of the federal experiment station, \$936.94 toward fencing and planting a forest reserve, and \$185.95 toward establishing a dairy, poultry, and swine experiment station under the college of agriculture.

FORESTRY.

During the year two forest reserves, aggregating 872 acres, were created. There are now 22 reserves, aggregating 546,636 acres, of which 358,052, or 66 per cent, is public land. Lessees of public lands

adjoining reserves are usually required to construct and maintain the necessary fences for forest protection. In one instance recently, where there was no adjoining public land, the Territory and adjoining owners cooperated in providing the necessary fences. Private owners are usually willing to fence off the portions of their lands included within reserves.

Fencing is generally sufficient to bring about the restoration of destroyed forests, but where planting is required, whether on or off reserves, the functions of the bureau have hitherto consisted mainly in the giving of advice, the conduct and maintenance of experimental plantations, and the distribution of seeds and seedling trees. During the last year, however, certain advance steps were taken in two instances. In one, the Territory planted a small reserve on the island of Oahu at the water sources of a homestead tract. In the other, a number of sugar plantations in the Kohala district on the island of Hawaii united in contributing \$24,280 for the purchase of certain land required to complete an important reserve, and the Territory allotted \$20,000 for planting portions of this reserve. A ranch, bordering one part of the reserve, has undertaken to expend \$5,000 in planting trees in consideration of the Territory expending an equal amount, part of the \$20,000, on that part of the reserve.

During the year a bulletin of instructions was published in English and Hawaiian in regard to planting and caring for trees. About 185,000 trees were distributed, of which about 59,000 were sold, the remainder being distributed free—mostly in small lots to schools, the army, the navy, improvement clubs, and homesteaders. The second Friday of November in each year is set apart as Arbor Day; on the last Arbor Day over 62,500 trees were distributed, mainly to the schools. The bureau has established two permanent substations of distribution, one at Hilo on the island of Hawaii, and one at Kalaheo on the island of Kauai; it established six other points of distribution temporarily for Arbor Day purposes. Many private nurseries are maintained, and over 500,000 trees were planted by plantations and ranches during the year.

Experimental stations are conducted at various high altitudes for coniferous and other trees, a portion of the expense of which is contributed by the United States Forest Service, which also contributed during the year to a special investigation of the Eucalyptus tree in this Territory, detailing a service man for nearly half a year for this purpose.

Much has been accomplished during the year in the collection of an herbarium. Two timber licenses were issued by the department of public lands. See heading "Public lands."

ANIMAL INDUSTRY.

The organization and equipment of this division of the bureau, as planned several years ago, has practically been brought to completion during the year, so that now probably no State or Territory is better protected than Hawaii from the introduction or spread of animal diseases. All the larger islands now have veterinarians in the service of this division, but paid in general by the stock raisers on the several islands, who cooperate cordially with the bureau. A new animal quarantine station, isolated, conveniently located, extensive, well equipped, and arranged to meet all of the varying needs, has been

constructed at Honolulu. The rules and regulations of the division have been revised and a new edition published.

In general the health of animals throughout the Territory has been good. Glanders continues to appear occasionally, but under present methods probably it will be eradicated at an early date. Tuberculosis is now commanding chief attention. Tests show that one-third of the cattle which furnish milk for Honolulu and vicinity are affected with this disease. An effort is being made to remedy this condition, and owners as a rule appear willing to make the necessary sacrifice. Considerable has been done in this direction on the other islands, particularly Kauai and Maui.

During the year there were imported through the ports of Honolulu and Hilo 687 horses, 561 mules, 196 cattle, 194 sheep, 1,075 swine, 73 dogs, and 356 crates of poultry. Among these there were a number of first-class stallions, bulls, and Merino rams for breeding purposes. The importations of mules have fallen off, owing to high prices. Mutton is still imported from Australia notwithstanding the progress that has been made in sheep raising. For the first time in a long period the Territory is practically supplying its own pork. Poultry and dairy products, however, are still imported in large quantities.

ENTOMOLOGY.

The work of this division is largely that of inspection of imported plants and fruits. During the year 191,942 parcels were inspected, of which 1,415 were fumigated, 517 were destroyed, and 343 were returned. Ninety-two species of insects were thus prevented from entering the Territory. The following importations indicate several lines in which the Territory should more fully supply itself: 31,056 boxes of apples and 25,438 of oranges; 53,711 sacks of potatoes and 11,857 of onions.

The equipment of this division was extended during the year by the addition of a laboratory and fumatoriums at the docks in Honolulu. The work of rearing and distributing beneficial insects has been continued. In its several lines of work this division cooperates with the corresponding divisions of the experiment stations of the sugar planters' association and the Federal Government.

FEDERAL EXPERIMENT STATION.

This station is cooperating commendably with the government and people of the Territory. Its work is expanding and yielding increased results with each succeeding year. During the last year a better office building was erected with funds provided by the Territory; the old office building will be kept for chemical and pathological laboratories. Ten acres of new land at the station were cleared and most of it planted, chiefly in cotton, bananas, and papayas. Cooperative experiments are conducted at various places throughout the Territory. The problem of establishing demonstration farms, especially in homestead centers, has been given special attention during the year; the best method for the present seems to be to subsidize the most successful homesteader in different homestead communities for the purpose of enabling him to carry out the desired tests. In this way also it will be possible to select a man of the same nationality as the majority of the homesteaders in each locality.

In the cooperative experiments attention has been given chiefly to legumes, cotton, and small cereals with satisfactory results.

The economy of increasing the area of forage crops seems to be demonstrated. The cultivation of corn is increasing in popularity. This crop can be grown under a great variety of conditions, profitable yields having been obtained as an intercrop in orchard plants where the rainfall was over 200 inches a year; it has yielded from 35 to 40 bushels per acre on dry range lands. Pigeon peas and Jack beans have given good results both as cover crops and as forage plants. The conviction that a rational system of rotation is necessary is rapidly growing. Sugar cane, which has been the main crop, requires less rotation than most other crops, but with the introduction and increase of other crops the need of rotation is more apparent.

The experiments in cotton have resulted in the planting of about 500 acres, with larger plantings in prospect. Experiments in many places demonstrate that it is not suitable for all localities. The low-lying, calm, hot areas produce a rapid growth and heavy yield. In one locality an acre of sea-island cotton planted in coral limestone yielded an average of 700 bolls per plant within six months. The heavy yield under such conditions requires the selection of a plant of erect growth to prevent the breaking of the branches by the weight of the cotton. Since cotton is a perennial in Hawaii, the plant must be pinched or pruned back to prevent it from becoming too large. The plant may be propagated by cuttings, which, however, is not feasible for commercial purposes except to obtain pure strains where several varieties are grown in close proximity. By budding a field may be worked over so as to become of an excellent and uniform strain. Phosphates have been found particularly beneficial in increasing the yield; in one case the yield was increased threefold by this means.

The station has continued its work on rice. About 150 varieties have been introduced from Japan, four of which appear particularly valuable. Owing to the preference of the Japanese for Japanese rice and the consequent large importation of rice from Japan, it is desirable to propagate satisfactory Japanese varieties locally. It has been found also that fertilizers should be applied to the fields before planting, and that nitrogen should be supplied in the form of ammonia and not in the form of nitrate, the latter being in some cases actually harmful, while the yields may be doubled by means of the former.

The study of pineapples has continued, especially in view of their comparative inadaptability to manganese soils. The best results from fertilizers were obtained by using superphosphate combined with ammonia sulphate and sulphate of potash. The sugar content is not increased after the fruit is cut as it is if left to ripen on the plant, thus showing the desirability of allowing a partial ripening in order to secure a better flavor in the fresh fruit. It has been found to be a simple matter to ferment the pineapple juice into alcohol and vinegar, about 8 per cent of alcohol being obtained by fermentation. With the use of cultures an excellent quality of vinegar may be made. It is important that profitable by-products should be produced, as about 6,000 tons of juice are going to waste in the process of canning.

The avocado pear may be produced through cutting, budding, and inarching, thus making it possible to produce in commercial quantities uniform fruit of good quality. Tests are also being made for the

production of extra late and extra early varieties. About 35 varieties of mangoes are being tested for quality on the station grounds. Both inarching and budding give good results. The experimentation with papaya trees has continued with satisfactory results. The object is to obtain varieties which will come true to seed and produce fertile plants and at the same time yield fruit of good quality and appearance and that will bear shipping well.

Continued experiments on the rubber plantations show the importance of clean cultivation, this reducing the period from planting to tapping about two years. The destruction of weeds by spraying with chemicals has proved economical.

Experiments have shown that sweet potatoes can be raised profitably for the off season in California.

PUBLIC WORKS.

GENERAL.

The last year has been one largely of readjustment. There were transferred from the territorial government to the counties the construction and maintenance of schoolhouses, magistrates' court-houses, jails, and (except in Honolulu) water and sewer works, in addition to streets, parks, and fire departments previously transferred. The Honolulu water and sewer works were put on an independent basis, their revenues to constitute a special fund to be expended by the superintendent of public works, with the approval of the governor, in the maintenance and improvement of the works and the payment of principal and interest of so much of the bonded indebtedness as was incurred for these works. The departments of public works, land, and survey were consolidated so far as that could be done by the appointment of the same person as head of each, with a view to greater efficiency and economy. In general these changes have operated well.

During the year the department has had the supervision of 16 contracts uncompleted at the beginning of the year, aggregating \$114,109.79, upon which \$108,652.79 was expended, and 30 new contracts, aggregating \$178,581.98, upon which \$136,614.94 was expended. The largest expenditures were for waterworks and harbor improvements. Of these contracts 35 were completed, with an expenditure of \$207,399.67, and 11 remained uncompleted, with an expenditure of \$37,868.06. Of the total amount, \$245,267.73, expended on these contracts, \$10,419.40 was from land sales for homestead roads, \$74,489.57 from current revenues, and \$160,358.76 from loan funds. The amount expended from loan funds for public works, whether or not under contracts, was \$191,699.82.

Since April 1, 1900, \$3,536,572.77 has been expended as follows on public improvements out of loan funds, besides much out of current receipts:

Expenditures on public improvements.

Public buildings.....	\$260, 546. 70
School buildings.....	579, 002. 98
Waterworks.....	880, 230. 56
Sewers.....	454, 756. 96
Roads and bridges.....	613, 416. 64
Wharves and landings.....	666, 272. 17
Dredging.....	82, 346. 76
Total.....	3, 536, 572. 77



A. ALAKEA WHARF.



B. INTERIOR OF ALAKEA WHARF SHED.

The department of public works covers a wide range of subjects, of which the following were among the more important during the last year:

WHARVES AND HARBORS.

This subject is considered also under the heading "Harbors and light-houses." Among other things a large two-story shed, with offices for various purposes, on the Alakea street wharf at Honolulu was completed, and is now used by the trans-Pacific steamers. Plans have been prepared for the construction of another long wharf on the opposite side of one of the slips from this wharf.

On the island of Maui two licenses were issued for the construction of wharves at the principal port, Kahului, one for interisland steamers and one for larger steamers. The smaller of these wharves has been constructed and is now in use. In connection with these licenses arrangements were made to secure the necessary rights of way and other rights to make the water front fully available for public use, the land at this port having been in private ownership. This was necessary, not only for public convenience, but to warrant further improvement of the harbor by congressional appropriations.

On the island of Hawaii a new wharf was constructed at Honuapo, the chief port on the southeasterly side of the island, on an exposed coast of lava rock. It was made with solid 5-inch steel piling sunk into holes drilled into the rock bottom, which at the end of the wharf was 24 feet deep. Since the close of the year a license has been issued for the construction of a wharf at Hilo of sufficient size for all vessels.

A commission appointed for the purpose has made a thorough investigation of the wharves and landings privately owned or operated in the Territory and has recently filed its report, which will be laid before the next legislature.

HONOLULU WATER AND SEWER WORKS.

As already stated, these works outside of Honolulu have been transferred to the counties, and those in Honolulu have been put on an independent basis.

A reservoir with a capacity of about 700,000,000 gallons was completed, at an elevation of about 1,000 feet in Nuuanu Valley back of Honolulu, at a cost of about \$300,000. The dam is 79 feet high, 2,497 feet long on the crest, 336 feet wide at the bottom, and contains an aggregate of 279,340 cubic yards of earth and rock, besides concrete and riprap. As a result mainly of the construction of this reservoir, the city this year for the first time in many years has not been limited in its use of water for irrigation purposes.

Besides increasing the supply available in dry seasons, much has been done through installation of meters, and in other ways for the prevention of waste. The consumption of the city averaged about 12,000,000 gallons daily, a decrease of about 1,000,000 gallons from that of the previous year, notwithstanding an increase in the number of consumers. The rate averages about $7\frac{1}{2}$ cents a thousand gallons, although it is not estimated on that basis.

Two artesian wells were sunk, a high lift pump was installed, and the construction of a concrete reservoir of 750,000 gallons capacity was begun.

There are 75.76 miles of pipe line in the Honolulu system, of which 2.59 miles were added during the year. In the sewer system there are 42.92 miles of pipe, of which 2,608 feet were added during the year. The number of gallons of sewage pumped daily has increased from about three and one-half million gallons in 1903 to more than seven million in 1910.

Special attention has been given to the collection of back rates as part of a general plan to bring the work of all departments up to date. The receipts were \$184,277.14, of which \$127,736.03 was expended for maintenance and improvements, \$37,951.72 in interest on bonds, and \$18,427.70 for redemption of bonds, a total of \$184,115.45.

KULA PIPE LINE.

This has been nearly completed and will cost about \$100,000. It will be 22 miles in length, beginning at an elevation of 4,500 feet and ending at an elevation of 1,900 feet. The first 4 miles will be of 12-inch wooden stave pipe to a point at which it is planned to construct a reservoir in the near future, and from that point the metal pipe will begin with a diameter of 6 inches and end with one of an inch and a half. This pipe line is expected to supply water, chiefly for domestic and live stock uses of homesteaders, over a large area. It was difficult to construct owing to the roughness of the country.

TOPOGRAPHIC AND HYDROGRAPHIC SURVEYS.

These surveys were begun by the Territory in cooperation with the United States Geological Survey, the former furnishing the funds and the latter the men. Early in the year Mr. M. O. Leighton, chief hydrographer, Mr. W. C. Mendenhall, in charge of underground water investigations, and Mr. R. D. Marshall, chief topographer, made general studies of the principal islands and outlined the proposed work. The work of the hydrographic survey has consisted chiefly in the collection of data, acquisition of the necessary instruments, and the establishment and maintenance of stream gauges and rain and evaporation stations, principally on the island of Kauai, but to some extent on the islands of Oahu and Maui.

In connection with this, full data have been collected and a careful study made of the artesian wells, especially on the island of Oahu, which depends very largely upon this source for its water supply. The first of these wells was bored in 1879. During the next ten years 100 were bored, and during the last twenty years 330 have been bored, making a total of 430, a few of which are dead, while the others deliver from 10,000 to 3,000,000 gallons daily. They are supplied chiefly by the heavy rainfall upon a comparatively small area along the higher portions of the Koolau range of mountains, a large portion of which rainfall, however, flows quickly down the steep short slopes into the sea. There are various basins in which the water rises to different levels, the highest level being about 42 feet. With the increase of wells the tendency naturally is toward a decrease in the height of the flow. It is important to have full and accurate information in order that the necessary action may be taken by legislation or otherwise to prevent excessive use or waste.

The island of Kauai was selected for the first work in both the hydrographic and topographic survey, because of its abundant waters



HONUPO WHARF.

and large areas of arable public land. The topographic field work on this island will soon be completed, and it is hoped that the maps will be completed a few months later. The scale will be 2 inches to a mile and the contour intervals will be 10 feet on the lower areas and 50 feet in the mountainous area. These surveys cost during the fiscal year \$36,589.10, a much larger sum than was anticipated, but it included much for equipment and preliminary work which will not have to be repeated, and now arrangements have been made under authority of a recent act of Congress for allotments toward this work out of appropriations for the United States Geological Survey.

SCHOOLS.

All public schools are under a territorial department of public instruction consisting of a superintendent and six commissioners appointed by the governor from the four principal islands. The functions of the local or county governments in regard to schools is confined to the construction of school buildings and maintenance of buildings and grounds, and these functions were transferred to the counties only a year ago. Private schools are required to obtain permits from the department and are to a limited extent subject to its supervision. Public school sessions are from 9 to 2 o'clock, five days a week, three terms a year, covering ten months.

Until a year ago there were several traveling normal inspectors, but all but one of these were cut out by the last legislature. To make up the deficiency the department appointed a supervising principal for a number of the lower-grade schools. It is planned for the coming year to divide the Territory into districts, each containing one higher-grade school and a number of lower-grade schools, and to have the principal of the higher-grade school act as a supervising principal of the other schools in his district.

A summer school for teachers has been held since the close of the fiscal year with regular instruction and special lectures.

The maintenance of the public schools has been so expensive that it has been impossible to secure adequate funds for some years past to keep pace with the increasing school population, but during the last year a special commission appointed for the purpose has made a careful study of the matter and will soon present its report. During the ten years of territorial government about three-quarters of a million dollars have been expended for new public school buildings, and the average annual cost of maintenance of the public school system, exclusive of new buildings, has been nearly \$400,000. The cost of maintenance per pupil has varied from about \$20 to about \$30 per annum. Nevertheless, the percentage of children of school age who are enrolled is higher than it is in many other places and the percentage of actual attendance is remarkably large.

A number of the private schools are of large size, well endowed, and well equipped, some of them having been founded from a half to three-quarters of a century ago.

The enrollment in all schools is 25,537, an increase of 648 for the year; in public schools, 19,909, an increase of 402; in private schools, 5,628, an increase of 246. The teachers number 486 in the public schools, a decrease of 7; and 266 in private schools, a decrease of 3. The number of public schools is 152, a decrease of 1; of private schools 55, a decrease of 1. During the ten years of terri-

torial government the number of pupils in both public and private schools has increased from 15,537 to 25,537, or just 10,000. The largest increase during the last year in all schools, 663, is in Japanese pupils. This has been so for some years past. The pupils of this race have increased during the last ten years from 1,352 to 7,078. They now comprise 27.72 per cent of the pupils; the Portuguese follow with 18.25 per cent; then come the Hawaiians with 17.15, part Hawaiians with 15.05 per cent, the Chinese with 11.18 per cent, and all others with 10.65 per cent.

Industrial training forms an important part of the instruction in the public schools. This embraces agriculture, woodwork, printing, and domestic science. Agricultural work includes the maintenance of flower and vegetable gardens and tree planting, especially on arbor day, besides keeping the school grounds in order. Pupils to the number of 9,309, in 125 schools, have been engaged in systematic gardening. Two of the schools, including a reformatory school, have raised sugar cane on a commercial basis, the next crop at one of these schools being expected to yield over \$5,000. Twenty-one schools are equipped for carpenter work, and 7,575 pupils engaged in that work during the year. Seven schools are equipped for printing and do regular printing on school work, publishing a young people's paper and many other things. Domestic science includes cooking, sewing, lace making, and weaving. Twelve schools have cooking departments. In sewing, 8,500 pupils have been engaged; nearly all the public schools teach plain sewing to both boys and girls of the primary grades, while the higher forms of work, such as cutting and fitting of garments, are taught only to the girls of the higher grades. Twenty-one schools give instruction in lace making. Five-hundred and seventeen pupils have done weaving with grass, bamboo, and hala leaves.

SCHOOL STATISTICS.

Teachers and pupils, public schools, June, 1910.

Island.	Schools.	Teachers.			Pupils.		
		Male.	Female.	Total.	Male.	Female.	Total.
Hawaii.....	59	43	115	158	3,496	2,868	6,364
Maul.....	33	32	47	79	1,706	1,401	3,107
Molokai.....	8	5	3	8	1,108	78	1,186
Oahu.....	35	18	166	184	4,109	3,364	7,473
Kauai.....	17	8	49	57	1,515	1,261	2,776
Total.....	152	106	380	486	10,937	8,972	19,909

Teachers and pupils, private schools, December, 1909.

Island.	Schools.	Teachers.			Pupils.		
		Male.	Female.	Total.	Male.	Female.	Total.
Hawaii.....	8	7	22	29	385	400	785
Maul.....	12	8	32	40	556	604	1,160
Molokai.....	2	2	1	3	20	15	35
Oahu.....	30	48	141	189	1,942	1,584	3,526
Kauai.....	3	3	2	5	56	66	122
Total.....	55	68	198	266	2,959	2,669	5,628

Pupils in public schools, by grades, June, 1910.

Grade.	Hawaii.	Maui.	Molokai.	Oahu.	Kauai.	Total.
Receiving grade.....	1,960	916	56	1,057	869	4,858
Grade I.....	1,451	739	41	1,637	622	4,490
Grade II.....	1,123	477	38	1,227	417	3,282
Grade III.....	875	406	36	1,260	364	2,940
Grade IV.....	538	311	13	687	290	1,839
Grade V.....	211	146	1	574	156	1,088
Grade VI.....	86	63	1	326	46	522
Grade VII.....	51	34	.....	241	12	338
Grade VIII.....	21	17	.....	167	.....	205
Normal course.....	.....	.....	.....	117	.....	117
High-school course.....	48	2	.....	180	.....	230
Total.....	6,364	3,110	186	7,473	2,776	19,909

Number of pupils, by ages, public and private schools, 1909-10.

Age.	Public schools.						Private schools.	Grand total.
	Hawaii.	Maui.	Molokai.	Oahu.	Kauai.	Total.		
Under 6.....	37	19	1	21	33	111	847	958
6 years.....	820	306	13	515	273	1,627	528	2,155
7 years.....	810	420	22	803	401	2,456	334	2,790
8 years.....	792	408	19	853	359	2,431	373	2,804
9 years.....	841	374	15	904	288	2,422	390	2,812
10 years.....	809	367	24	812	325	2,337	385	2,722
11 years.....	677	268	22	735	287	2,019	364	2,383
12 years.....	631	258	16	743	276	1,954	418	2,372
13 years.....	591	250	12	655	273	1,781	398	2,179
14 years.....	380	162	22	573	178	1,315	406	1,721
15 years.....	166	74	15	302	75	632	310	942
Over 15.....	110	144	5	557	8	824	875	1,699
Total.....	6,364	3,110	186	7,473	2,776	19,909	5,628	25,537
Total private schools.....	785	1,160	35	3,526	122	5,628	.....	.....
Grand total.....	7,149	4,270	221	10,999	2,898	25,537	.....	.....

Nationality of teachers, public and private schools, 1909-10.

Nationality of teachers.	In public schools.	In private schools.	Total.	Nationality of teachers.	In public schools.	In private schools.	Total.
Hawaiian.....	71	19	90	Japanese.....	.....	5	5
Part Hawaiian.....	142	16	158	Chinese.....	10	12	22
American.....	179	175	354	Korean.....	.....	3	3
British.....	34	15	49	Others.....	12	5	17
German.....	6	6	12				
Portuguese.....	32	10	42	Total.....	496	266	762

Nationality of pupils, public and private schools, 1909-10.

Nationality of pupils.	Public.		Private.		Total.	
	1909.	1910.	1909.	1910.	1909.	1910.
Hawaiian.....	3,800	3,569	808	812	4,608	4,381
Part Hawaiian.....	2,546	2,615	1,135	1,227	3,681	3,842
American.....	430	427	542	649	972	1,076
British.....	87	84	86	79	173	163
German.....	164	155	112	111	276	266
Portuguese.....	3,574	3,571	1,122	1,091	4,696	4,662
Japanese.....	5,799	6,363	616	715	6,415	7,078
Chinese.....	2,129	2,148	701	707	2,830	2,855
Porto Rican.....	316	309	122	63	438	372
Korean.....	157	160	23	100	180	260
Others.....	505	508	115	74	620	582
Total.....	19,507	19,909	5,382	5,628	24,889	25,537

Nationality of pupils, public and private schools, by years, since organization of territorial government.

Nationality.	Decem- ber, 1900.	Decem- ber, 1901.	Decem- ber, 1902.	June, 1903.	Decem- ber, 1904.	Decem- ber, 1905.	Decem- ber, 1906.	Decem- ber, 1907.	1908.*	1909.*	1910.*
Hawaiian.....	4,977	4,903	5,076	4,893	4,963	4,943	4,906	4,658	4,575	4,608	4,381
Part Hawaiian.....	2,631	2,599	2,934	3,018	3,267	3,430	3,500	3,546	3,548	3,681	3,848
American.....	698	812	796	799	831	1,025	1,009	957	930	972	1,076
British.....	232	240	215	217	226	268	187	220	219	178	163
German.....	320	337	333	295	282	298	187	205	243	276	265
Portuguese.....	3,809	4,124	4,335	4,243	4,446	4,683	4,437	4,537	4,537	4,696	4,663
Japanese.....	1,352	1,993	2,341	2,521	3,313	3,899	4,547	5,035	5,513	6,415	7,076
Chinese.....	1,289	1,386	1,469	1,554	1,676	2,087	2,197	2,648	2,596	2,830	2,865
Porto Rican.....		596	593	538	437	405	392	368	355	438	372
Korean.....							161	210	294	180	208
Others.....	228	260	260	337	285	636	281	733	705	630	682
Total....	15,437	17,519	18,382	18,415	20,017	21,644	21,890	23,087	23,445	24,899	25,987

* These numbers are as of June 30 for public schools and December 31 of the previous year for private schools.

Percentage of nationalities, public and private schools.

Nationality.	Percentage of enrollment.			Nationality.	Percentage of enrollment.		
	Public schools, June, 1910.	Private schools, Decem- ber, 1909.	All schools.		Public schools, June, 1910.	Private schools, Decem- ber, 1909.	All schools.
Hawaiian.....	13.97	3.18	17.15	Chinese.....	8.41	2.77	11.18
Part Hawaiian.....	10.24	4.81	15.05	Porto Rican.....	1.21	.25	1.46
American.....	1.67	2.54	4.21	Korean.....	.63	.39	1.02
British.....	.33	.31	.64	Others.....	1.99	.29	2.28
German.....	.61	.43	1.04				
Portuguese.....	13.98	4.27	18.25	Total.....	77.96	22.04	100.00
Japanese.....	24.92	2.80	27.72				

COLLEGE OF AGRICULTURE AND MECHANIC ARTS.

This college has made rapid progress during the little more than two years of its existence. It is still in its temporary quarters, where it is housed in three buildings. During the last year much has been accomplished as follows:

Two additional tracts of land of 23.01 and 16.90 acres, respectively, were acquired by purchase for the permanent site. One tract of 15.87 acres had been purchased previously, and the Territory owned another tract of 30.60 acres at the outset. The total area as originally planned, comprising 86.38 acres, valued at over \$100,000, has now been secured in one block. It is favorably located in the suburbs of Honolulu and is bounded on one side by a stream which will prove valuable for various purposes.

The engineering laboratory was completed and equipped with machinery and tools for wood and metal technology and the testing of construction materials.

An observatory was constructed and a telescope and other instruments mounted on a hill about 2 miles distant from the site of the college.

A department of dairy, poultry, and swine husbandry was established and work was begun on the necessary buildings.

Sixty-four students attended the college during the year, of whom 13 were in regular courses leading to degrees, as compared with 5 during the previous year, and 51 were in special courses, as compared with 31 during the previous year. Movable schools were conducted at Hilo and Wailuku on the islands of Hawaii and Maui, and a plan has been prepared for correspondence study during the coming year.

LIBRARY OF HAWAII.

Arrangements were completed during the year for the establishment and maintenance of a territorial library. A site has been selected upon land already belonging to the Territory in what might be called the civic center of Honolulu, and Mr. Andrew Carnegie has undertaken to give \$100,000 for the building. The legislature has provided for maintenance to the amount of \$10,000 a year. Agreements have been made by which the library of the Honolulu Library and Reading Rooms Association, containing 17,000 volumes, and the valuable library of the Hawaiian Historical Society, containing about 1,700 volumes and 2,700 pamphlets, will be incorporated in the Library of Hawaii, and by which, also, the income of the Honolulu Library and Reading Rooms Association, which will probably amount to from \$5,000 to \$7,000 a year, will be applied toward the maintenance of the new library, thus assuring the library of a total income of upward of \$15,000 a year.

THE COURTS.

TERRITORIAL COURTS.

These courts are up to date in their work. Congress has recently amended the organic act so as to carry out the three recommendations made in my last report in regard to the courts. The salaries of the supreme and circuit court judges have been increased; to the causes of disqualification of judges enumerated in the organic act there was added that of having been of counsel, and the territorial legislature was authorized to add other causes; the naturalizations made by the circuit courts before their jurisdiction to naturalize was made clear by the act of 1907 were confirmed.

The statistics given below are for the nine complete calendar years under territorial government, omitting the last half of 1900 and the first half of 1910. The number of criminal cases (9,462) in all courts in 1909 was larger by 1,238 than the number in 1908, and the number of convictions was larger by 1,180, the percentage of convictions being 79 as compared with 76 for the preceding year and an average of 72 for the nine years. The number of civil cases in all courts was 2,634, a decrease of 36 from the number in the preceding year and of 174 from the average for the nine years.

SUPREME COURT.

Mr. Justice John T. De Bolt was appointed to succeed Mr. Justice Arthur A. Wilder, resigned. In this court the number of cases (91) in 1909 was less by 2 than in 1908 and less than in any preceding year under territorial government, the average for the nine years having been 117 per year.

CIRCUIT COURTS.

Judge Henry E. Cooper was appointed first judge of the first circuit court to succeed Judge John T. De Bolt, promoted to the supreme court. In the five circuits (seven judges) the number of civil cases (825) in 1909 was less by 185 than in 1908 and less by 150 than the average for the nine years. The criminal cases (408) were greater by 77 than in 1908 and less by 67 than the average for the nine years. The percentage of convictions in criminal cases was 41 as compared with 56 for the preceding year and an average of 48 for the nine years. Divorce cases were numerous, as was the case during the preceding two years, the numbers having been 304 in 1907, 296 in 1908, and 257 in 1909 as compared with an average of 165 for the nine years, the numbers having varied from 71 to 128 during the first six years.

DISTRICT COURTS.

In the 29 district courts the number of civil cases (1,718) in 1909 was larger by 151 than in 1908, while the number of criminal cases (8,766) was larger by 1,161. The percentage of convictions was 80 as compared with 77 for the preceding year, and an average of 74 for the nine years.

CASES.

The following tables show the cases by courts, classes of cases, and nationality of convicted in criminal cases:

Court statistics, calendar years.

TOTAL CASES IN ALL COURTS

	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	Average.
Criminal cases.....	10,778	10,974	10,037	10,070	10,102	7,446	8,642	7,926	9,174	9,402
Civil cases.....	2,259	2,797	2,834	3,655	2,542	2,690	3,190	2,670	2,634	2,806
Total.....	13,037	13,771	12,871	13,725	12,644	10,136	11,832	10,606	11,808	12,270
Convictions in criminal cases.....	8,789	7,409	6,703	6,886	7,478	4,463	6,499	6,031	7,211	6,825
Percentage of convictions.....	81	68	67	68	74	60	75	76	79	72

CASES CLASSIFIED BY COURTS.

Supreme court.....	100	120	99	149	135	141	133	93	91	118
Circuit courts.....	1,478	1,699	1,330	1,714	1,317	1,428	1,601	1,341	1,233	1,453
District courts.....	11,519	11,952	11,442	11,862	11,192	8,567	10,098	9,172	10,484	10,899
Total.....	13,087	13,771	12,871	13,725	12,644	10,136	11,832	10,606	11,808	12,270

CASES IN SUPREME COURT.

On appeal, error, or exceptions:										
Law.....	49	61	32	77	63	48	40	30	51	59
Equity.....	21	23	20	17	25	16	36	8	11	19
Divorce.....			2	1		3	2	2	1	1
Probate.....	5	9	2	8	3	7	4	6	3	5
Tax appeals.....	11	16	18	17	20	16	17	31	1	16
Original.....	6	7	10	13	9	6	13	8	6	8
Miscellaneous.....	8	4	15	16	15	45	21	8	18	16
Total.....	100	120	99	149	135	141	133	93	91	118

Court statistics, calendar years—Continued.

CASES IN CIRCUIT COURTS.

	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	Average.
Civil:										
Law.....	245	167	205	188	172	237	191	248	217	207
Equity.....	80	74	50	63	63	67	46	51	55	61
Divorce.....	111	108	71	115	128	99	304	296	257	165
Probate.....	373	353	296	365	344	322	470	400	279	356
Naturalizations.....	81	375	58	266	30	79				98
Miscellaneous.....	74	53	107	241	83	95	123	6	17	88
Total.....	964	1,130	787	1,238	820	899	1,134	1,010	825	978
Criminal.....	454	569	543	476	497	529	467	331	408	475
Grand total.....	1,418	1,699	1,330	1,714	1,317	1,428	1,601	1,341	1,233	1,453
Convictions in criminal cases.....	258	327	225	181	201	201	285	187	166	226
Percentage of convictions.....	57	56	41	38	40	38	61	56	41	48

CASES IN DISTRICT COURTS.

	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	Average.
Civil.....	968	1,299	1,935	1,965	1,587	1,729	1,221	1,567	1,18	1,554
Criminal.....	10,551	10,653	9,507	9,897	9,606	6,838	8,178	7,605	8,766	9,066
Total.....	11,519	11,952	11,442	11,862	11,192	8,567	9,399	9,172	10,484	10,620
Convictions in criminal cases.....	8,531	7,667	6,702	6,887	7,417	4,444	6,214	5,844	7,045	6,750
Percentage of convictions.....	81	71	70	70	77	65	76	77	80	74

NATIONALITY OF PERSONS CONVICTED.

Nationality.	Population.		Number convicted.									Average.
	1900.	1910.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	
Chinese.....	25,782	21,698	1,762	1,540	1,331	1,555	2,142	1,187	1,603	1,355	1,472	1,549
Japanese.....	61,115	79,663	2,485	2,229	2,081	2,101	1,988	998	1,719	1,951	2,508	2,006
Portuguese.....	15,675	22,294	531	427	451	427	441	237	407	361	375	406
Hawaiians.....	37,635	38,584	2,155	1,693	1,526	1,562	1,565	890	1,422	1,150	1,497	1,495
Others.....	13,814	29,670	1,834	1,542	1,313	1,242	1,361	1,153	1,348	1,214	1,364	1,374
Total.....	154,001	191,909	8,787	7,431	6,702	6,887	7,497	4,465	6,499	6,031	7,216	6,830

* Includes part Hawaiians.

Convictions in criminal cases, by classes of cases.

Year.	Offenses against property.	Offenses against chastity.	Gambling.	Liquor selling, distilling, etc.	Drunkenness.	Miscellaneous.
1901.....	310	172	2,668	192	2,145	2,309
1902.....	294	220	2,210	121	1,630	1,985
1903.....	301	224	2,057	137	1,437	1,710
1904.....	370	191	2,570	177	1,188	1,521
1905.....	348	199	2,991	158	1,198	1,521
1906.....	332	115	1,559	38	885	766
1907.....	265	234	2,493	114	1,331	2,002
1908.....	238	171	2,252	86	1,231	2,063
1909.....	275	249	3,147	68	1,068	2,409
Average.....	304	197	2,438	121	1,346	1,814

JUVENILE COURTS.

During the last seven years each succeeding legislature has enacted more advanced laws in regard to delinquent and dependent juveniles. At present jurisdiction over juveniles is confined chiefly to the circuit courts and is exercised principally by the first circuit court, one of whose judges is assigned for this work; the jurisdiction extends to both delinquents and dependents under 18 years of age; the proceedings are noncriminal in character; the evidence taken in such cases can not be used against the children in other proceedings; the juveniles are kept separate from older offenders; parents are held to greater responsibility; parents or children are summoned as a rule without arrest, and provision is made as far as practicable for investigation before summons; children may be enlarged on probation or committed to an industrial school; dependents may be committed to suitable persons or private institutions.

In the principal juvenile court, that at Honolulu, the number of cases during the last fiscal year was 329, which is far larger than for any previous year. These included 291 boys and 38 girls, of whom 190 were Hawaiians, 84 Portuguese, 18 Chinese, 2 Japanese, and 35 others. Of these, 165 served a period of probation and were discharged; 68 were committed to industrial schools; 60 were reprimanded and discharged; 24 were surrendered by the probation officers; in 3 cases sentences were suspended; 4 cases were referred to the district magistrate; and 5 cases remained pending. Twenty-nine dependent children came before the court, of whom 16 were boys and 13 girls. There were 23 Hawaiians, 2 Portuguese, 2 Spanish, and 2 others. Of these, 19 were committed to private homes and 10 to institutions.

Cases in Honolulu juvenile courts, five years to July 1, 1910.

Delinquent cases.	April 24, 1905, to June 30, 1906.	July 1, 1906, to June 30, 1907.	July 1, 1907, to June 30, 1908.	July 1, 1908, to June 30, 1909.	July 1, 1909, to June 30, 1910.	Total.	Boys.	Girls.
Assault and battery.....	6	10	6	10	18	50	50	.....
Disobedience.....	9	13	2	5	20	49	27	22
Fornication.....	.....	.....	4	1	.....	5	4	1
Gambling.....	14	28	15	38	51	146	146	.....
Idle and dissolute.....	16	39	24	57	44	180	113	67
Larceny.....	29	61	30	38	80	238	231	7
Malicious injury.....	6	.....	5	7	17	35	31	4
Tuancy.....	28	31	12	24	53	148	120	28
Other offenses.....	2	17	4	2	46	71	69	2
Total delinquent.....	110	199	102	182	329	922	791	131
Dependent cases.....	.....	.....	.....	.....	29	29	16	13
Grand total.....	110	199	102	182	358	951	807	144

LAND REGISTRATION COURT.

The jurisdiction of this court is exercised by one of the judges of the first circuit court, who is assigned for the purpose. During the last fiscal year 22 applications were filed, and 13 decrees were issued covering an area of 63,316 acres, the assessed value of which was \$560,660.

From the date of the organization of the court, October 13, 1903, to June 30, 1910, 185 applications were filed, of which 19 were still

pending; the aggregate area of the lands whose titles have been registered is 72,357.586 acres; their assessed value is \$1,729,722. Fees have been collected to the amount of \$4,292.49, and the amount collected for the assurance fund is \$1,170.29.

FEDERAL COURT.

This is a United States district court, with the jurisdiction also of a United States circuit court, and has two district judges, an additional judge having been provided for by Congress a year ago, at which time also the salaries of the judges were increased. Recently Congress has raised the salaries of the United States district attorney and United States marshal.

The civil cases brought in this court during the last fiscal year numbered 25, consisting of 3 admiralty, 14 bankruptcy, 3 United States civil, one other civil, and 4 habeas corpus cases, as compared with 33 for the previous year, consisting of 3 admiralty, 21 bankruptcy, 5 United States civil, 2 other civil, and 2 habeas corpus cases.

The criminal cases brought during the last fiscal year numbered 111, accounted for as follows: Convictions, 42; acquittals, 13; nolle prossed, 13; pending, 43; as compared with 114 during the preceding year, accounted for as follows: Convictions, 29; acquittals, 6; nolle prossed, 20; pending, 59. The cases were of great variety.

At the close of the fiscal year there were pending in this court 110 cases, namely, 7 admiralty, 40 bankruptcy, 8 United States civil, 3 other civil, 1 habeas corpus, and 51 criminal. There are pending also 3 cases on appeal from this court, namely, 1 admiralty and 2 criminal.

ATTORNEY-GENERAL'S DEPARTMENT.

The work of this department has been mainly advisory and the preparation of legal documents. Since the organization of county governments several years ago the criminal work has been gradually turned over to the county attorneys until now very little remains. The department still attends to the civil work of the Territory.

There is now only one case pending in the Supreme Court of the United States. In the supreme court of the Territory the department appeared in 16 cases during the year, of which 15 have been decided, in 12 of which the Territory's contentions were sustained. In the circuit courts the department appeared in 166 cases; in the district courts, in more than 300 cases. In the United States district court it appeared in 3 cases. Special effort has been made during the year to bring government collections up to date and settle questions in which the Territory was interested, as, for instance, by the collection of back rents, taxes, water and sewer rates, and the settlement of numerous cases of disputed land titles.

TERRITORIAL PRISON.

A year ago the jails were transferred to the counties, leaving to the Territory only Oahu Prison, which is the territorial penitentiary for felons. The high sheriff of the Territory is its warden.

At this prison there were received during the year 141 felons and discharged 100, leaving at the close of the year 212 as compared

with 171 at the close of the previous year. Besides these, 5 misdemeanants were received, of whom 4 were discharged, leaving 1 at the close of the year; and 250 committed persons were received, of whom all but 12 were discharged, leaving at the close of the year a total of 225 felons, misdemeanants, and committed persons. Of these, 66 were Japanese males and 2 Japanese females, 39 Hawaiian males and 1 Hawaiian female, 37 Chinese males, 19 Korean males and 1 Korean female, and 60 males of other nationalities; 185 were territorial prisoners and 40 were federal. The total number varied from 185 to 270 during the year and averaged 215. Two were executed, 1 died, 6 were pardoned, and 2 were paroled.

The cost of maintenance, including support of prisoners and pay of guards, was \$39,284.04, or 49.8 cents per prisoner per day, an increase of 3.8 cents over the cost for the previous year, which, however, was 1.3 cents less than the cost for the year before that. The receipts for support of United States prisoners amounted to \$8,156, which was greater by \$2,920.50 than for the preceding year.

The prisoners performed work as follows: 20,653 days on roads, bridges, and parks; 14,392 days as male servants and manufacturers at the prison; 2,156 days as police station servants; 1,225 days as female manufacturers of hats and clothing at the prison; besides 7,877 days on the construction of a scenic road at the volcano.

PUBLIC HEALTH.

GENERAL.

At the beginning of the fiscal year there were transferred from the Territory to the counties the inspection of fish, meat, and cattle in cooperation with the territorial bureau of agriculture and forestry; dairies in cooperation with the federal and territorial food commissioner and analyst; buildings, plumbing, house sewers, the licensing of restaurants and laundries subject to the approval of the territorial board of health as to suitability of locality, and the maintenance of hospitals. The Territory, through its 24 physicians in the several districts and its appropriations for medical services and supplies, continues to provide the necessary dispensary and home treatment for the indigent sick. A fine children's hospital was completed and opened during the year in Honolulu. This was constructed and endowed through private contributions and is governed by a board of trustees. A number of general hospitals are governed similarly.

Special attention has been given during the year to the territorial department of public health with a view to better organization and the enlargement and increased effectiveness of its work. The activities of the board are indicated in kind and extent by the following appropriations for the present biennial fiscal period: Treatment of indigent sick, \$37,360; quarantine, fumigation, disinfection, suppression of contagious diseases and sanitation, \$71,230; tuberculosis, \$18,000; treatment of incurables, \$15,000; pure food, \$3,000; vaccination supplies, \$2,750; insane asylum, \$76,560; care, treatment, and segregation of lepers, \$456,975; office expenses, \$28,360; making a total of \$709,235.

A marked result of the work of the board during the year has been the effective interest awakened throughout the Territory for better

sanitation and the prevention of contagious and infectious diseases. This has led to much cooperation in service and pecuniary assistance. For the mosquito campaign \$1,000 a month is contributed through the Shippers' Wharf Committee of Honolulu and \$750 a month through a similar committee at Hilo; many individuals and corporations are contributing in other ways; a number of sugar plantations have devoted large sums of money and done much work for the better sanitation of laborers' quarters.

SANITATION.

This work has been reorganized and greatly extended throughout the Territory and especially in Honolulu, where there are eight inspectors for sanitation, fumigation, and disinfection, and eleven mosquito inspectors who incidentally do much sanitation work. For this work the city has been districted and maps have been prepared showing every house, stream, rice or taro patch, pool, etc., and names of owners and occupants; during the year the sanitary inspectors made 198,295 inspections, and among other things looked after the installation of sanitary fixtures in 3,761 cases, abolished fixtures in 3,770 cases, and abated 19,187 nuisances; the mosquito inspectors have made 88,189 inspections since February, when they began work. Particular attention has been given also to sanitation in the districts of Puna, Hilo, Hamakua, and North and South Kohala, on the island of Hawaii.

VITAL STATISTICS.

General health conditions have been good, although there was a small epidemic of enteric fever in Kona on the island of Hawaii and an epidemic of diphtheria among Russian immigrants, a number of sporadic cases of plague on the island of Hawaii, and a marked increase in the number of deaths in Honolulu from pneumonia, namely, 137 as compared with 71 during the previous year. The number of deaths from pneumonia for the entire Territory was 305 and from tuberculosis 325, while from plague there were 12 deaths out of 14 cases. Pneumonia has not been a common disease in the Territory, and its large increase during the year is under special investigation. Of the plague cases three were found among the Russian immigrants, who became infected before arrival, and the remainder were in the districts of Puna, Hilo, and Hamakua on the island of Hawaii.

The total number of deaths from all causes, including 173 from accidents, homicide, suicide, and legal executions, numbered 2,912, an increase of 61 over the number for the previous year, making a death rate of 14.42 per 1,000, estimating the population at 190,000 and excluding the 173 deaths above mentioned. The births numbered 4,302, a decrease of 600, making the rate 22.6 per 1,000. Notwithstanding the increase in deaths and decrease in births, the latter exceeded the former by 47 per cent. There were 1,959 marriages, an increase of 311.

TUBERCULOSIS.

Organized antituberculosis work was instituted during the year. This work is conducted not alone by the board of health, but also by or in cooperation with the several county governments and many private organizations and individuals. It has naturally been carried farthest in Honolulu where the need is greatest and where a number of organizations of various kinds and individuals have combined to conduct a campaign against this disease through a social settlement organization known as the "Palama Settlement." A day camp, pure-milk depots, and other institutions are maintained, and district nurses are employed. The Territory subsidizes a hospital devoted largely to consumptives. It also maintains a system of inspection for the discovery and treatment of cases and for disinfection, and keeps full records of patients and the places where they have lived. The campaign is making progress on the other islands. The county of Maui has established a sanatorium in a peculiarly suitable locality and has already completed four of its buildings. The Territory assists this financially, and contributions have been received for it from private sources.

LEPROSY.

The new hospital and laboratory buildings at the Kalihi receiving station in the suburbs of Honolulu have nearly been completed. The erection of these was in pursuance of the new policy inaugurated a year ago in regard to the treatment of this subject. This policy is yielding satisfactory results. Persons are more willing to present themselves for examination, so much so that during the last year 60 lepers were received as compared with 11 for the preceding year. At the close of the year there were under segregation 652 lepers, including 7 who were transferred to the United States Leprosy Investigation Station, as compared with 742 at the close of the preceding year, a decrease of 90. Of these, 621 are at the settlement on Molokai and 31 at the Kalihi receiving station. Ninety-three died during the year and 57 were discharged as cured. There were also 35 officials and assistants, 54 helpers, and 17 children at the settlement, and 4 officials and assistants at the receiving station. At the home, in Honolulu, for nonleprous girls of leprous parents there were 42 children and 5 officials and at a similar home for boys there were 29 boys and 5 officials; during the year 10 girls and 15 boys were discharged.

UNITED STATES LEPROSY INVESTIGATION.

This has been conducted chiefly in cooperation with the territorial board of health at the latter's leprosy hospital and receiving station at Kalihi in the suburbs of Honolulu, where a laboratory has been provided for the purpose by the board of health and a dispensary is maintained for experimental treatment of patients provided by the board. During the year the large station at Kalawao, one of the two villages at the leper settlement on the island of Molokai, was completed and a part of the laboratory force transferred to it. At that station a laboratory is maintained, and also a hospital for treatment of patients provided by the territorial board of health.

During the year four bulletins were published—on a statistical study of leprosy in Hawaii, the use of nastin in the treatment of the disease, the use of acetone as a palliative remedy in nasal lesions, and on nasal

secretions as a means of early diagnosis; data also were prepared for the report of the United States Public Health and Marine-Hospital Service presented at the international congress on leprosy held in Norway.

Studies have been made on the subject of the transmission of the disease, demonstrating that the mosquito plays no part in this matter, but that, under certain conditions, the house fly and certain other flies can and do convey the bacillus in large numbers. It appears also that the liability of children of lepers to contract the disease varies directly with the length of time that they are allowed to remain with their parents; in other words, that the disease is contracted only by exposure and that heredity is not a factor in its spread; also that in practice it is more effective to secure the substantial segregation of a large percentage of lepers than the absolute segregation of a smaller number. In this connection nearly all recent articles, numbering several hundred, upon the subject of transmission have been reviewed in original or abstract and histories of local cases have been collected.

Studies in treatment show that of the remedies experimented with two are of value, namely, chaulmoogra oil and a vaccine prepared from the cultivation of six varieties of bacteria of the same natural group as the bacillus of leprosy. The success of the latter seems to indicate that if a vaccine could be prepared from the bacillus of leprosy it would be of great value. Until recently it has been found impossible to make cultures of this bacillus in artificial media, but during the last few months several members of the staff have succeeded in doing this by methods advanced recently by M. T. Clegg, of Manila.

UNITED STATES PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

The operations of this service cover quarantine, plague-preventive measures, marine-hospital work, immigration inspection, and leprosy investigation, the last being conducted independently of the others. Besides the first-class quarantine and disinfecting station at Honolulu, which has a wharf that can accommodate the largest vessels and quarantine accommodations for 675 passengers and tent platforms for 1,280 additional persons, there are substations at 7 subports of entry. The station at Honolulu is greatly in need of a new water and a new sewerage system, which will probably be provided in the near future. During the past year much has been accomplished in grading, planting, installing an electric-light plant, constructing a road to Quarantine Island, and in other ways.

The work of this service in this Territory is of the highest importance in view of the position of Hawaii at the intersection of trans-Pacific steamship lines. Hawaii serves as a buffer for the Pacific coast against diseases from the Orient. In respect to these diseases, conditions have changed considerably in the last year or two, owing to the substitution, in large measure, of Filipino for oriental immigration. The Filipinos are afflicted to a larger extent with skin and venereal diseases, and the darkness of their skins makes more difficult the detection of certain diseases in their earlier stages. Care must be taken also to prevent the introduction of amœbic dysentery, which prevails in the Philippines. The danger of Hawaii becoming

a new center of yellow fever and of malaria by the introduction of infected mosquitoes from Mexican and Central American ports also presents a serious problem, especially now that steamers are coming directly from those ports and will probably come in greater numbers in the future. The yellow-fever mosquito is here, but has never become infected. The malarial mosquito has not been introduced.

The work of the service in these islands has increased in several directions. During the last year it has included, among other things, the inspection of 592 vessels and disinfection of 65, of which 10 were actually infected or had recently been infected; inspection of 75,735 passengers and 63,842 members of crews and 5,204 immigrants, of which 105 were rejected. During the year no outgoing quarantine has been established for Honolulu, but one was established for nearly two months for Hilo on account of a few cases of plague at that port and in a neighboring district.

The service has continued to cooperate with the territorial board of health in the suppression and prevention of plague, and especially in the destruction and examination of rats. During the year 32,116 rats and mongoose were received at the laboratory of the service, and of these over three-fourths were examined bacteriologically.

At the request of the territorial government a large number of Russian immigrants were quarantined at the station for more than a month, chiefly because of diphtheria. This was practically a matter of necessity because of the facilities of the station for handling large numbers, and at the same time was a great saving in expense.

NATIONAL GUARD OF HAWAII.

There are nine companies of infantry, one hospital company, and a band. No new companies were added during the year. Considerable was done, however, toward increasing the efficiency of the force. A grading of noncommissioned officers was made by an inspecting officer detailed for the purpose by the commanding officer of Fort Shafter. A school for officers in map reading was held preparatory to an encampment of the officers for instruction by officers detailed by the War Department. Instruction has been given to the companies by a noncommissioned officer detailed by the War Department.

A military hospital was maintained for a month on the United States quarantine island, to guard and care for over 800 Russian immigrants, who were in quarantine for diphtheria.

In the national match at Camp Perry, Ohio, in August, 1909, the team from the national guard of this Territory won twenty-fourth place with a score of 3,520, among 48 competing teams. This is an advance from twenty-sixth place among 50 teams in 1908, and thirty-fourth place among 48 teams in 1907. Since the close of the fiscal year the team has participated in another national match, in which it won twenty-second place with a score of 2,945, the score of the winning team being 3,186. A smaller team won sixth place in the National Rifle Association match.

The greatest need of the territorial national guard is an armory at Honolulu. This probably can not be obtained until the restoration by the Federal Government to the territorial government of the so-called "barracks lot," which was taken over for military purposes by the Federal Government soon after annexation. It is hoped

that this will be restored during the present year, in which case an adequate appropriation for an armory may be expected from the territorial legislature.

A military census of the Territory was taken at the same time as the general census by the Federal Census Bureau at the request of the governor. This is intended to show the age, race, previous military or naval experience, etc., of all males of military age. The tabulation of the returns is not yet completed.

UNITED STATES MILITARY AND NAVAL AFFAIRS.

Good progress was made during the year in the construction of military defenses on the island of Oahu. A mortar battery was completed and two companies of coast artillery arrived early in the fiscal year to take charge of it. Other batteries, including several for large disappearing rifles, are approaching completion and the armaments of some of them have been mounted. The first two searchlights have arrived and have been mounted. A military survey of the island by the officers and soldiers of an engineer company is nearly finished. Since the close of the fiscal year this Territory has been made a military district under the department of California.

At Pearl Harbor the widening, deepening, and straightening of the long entrance channel has proceeded rapidly, and Congress has provided for the continuation of the work. Of the amount, \$3,296,000, required, \$2,500,000 has been appropriated. More than one-third of the dredging has been completed and the channel will probably be open for navigation by the end of 1911. Much work has been done also toward the construction of the dry dock, an increase in the size of which as originally planned was recently authorized by Congress. The contract cost of the dock is \$2,304,000, of which \$1,500,000 has been appropriated.

Besides the army engineers and coast artillery above mentioned, detachments of cavalry, infantry, and marines are stationed at various posts.

Army transports call regularly on their voyages to and from the Philippines, and not only many American naval vessels, but also British, German, French, Italian, Dutch, Portuguese, and Japanese naval vessels have called at Honolulu during the year.

UNITED STATES INTERNAL-REVENUE SERVICE.

The receipts for the year were \$209,132.51, an increase of \$130,024.52 over those of the previous year. The large increase is due to the federal corporation tax, which amounted to \$124,201.18. Exclusive of this tax the increase was \$5,823.34.

The entire amount received during the ten complete fiscal years since the organization of territorial government is \$737,465.18, and the disbursements, including salaries and incidental expenses, have been \$115,783.41, leaving net collections of \$621,681.77. During the half month between the organization of territorial government and the beginning of the first complete fiscal year the collections amounted to \$7,454.30.

The production of wine has doubled during the last two years. The withdrawal of spirits from bond, tax paid, for local consumption, has materially increased during the same time.

Under the head "Special taxes," in the table below, there were 579 taxpayers, including, among others, 406 retail liquor dealers, 72 wholesale liquor dealers, 52 retail malt liquor dealers, 8 wholesale malt liquor dealers, 5 rectifiers of less than 500 barrels, and 2 brewers of more and 2 of less than 500 barrels per annum.

Receipts and disbursements, complete fiscal years, since organization of territorial government.

Receipts.	1901.	1902.	1903.	1904.	1905.
Collections on lists (fines and penalties).....	\$13,991.07	\$10,075.91	\$6,274.99	\$2,846.34	\$1,491.64
Fermented liquor.....	1,335.09	17,434.95	11,110.00	14,470.00	14,370.00
Distilled spirits.....	180.51	.....	1,500.51	5,177.72	7,760.72
Cigars and cigarettes.....	997.53	1,747.52	570.28	860.02	530.40
Tobacco and snuff.....	5,638.08	2,903.56	2,207.70	2,873.94	2,438.28
Special taxes.....	17,715.89	18,637.81	17,741.21	17,756.78	16,677.77
Playing cards.....	1,842.64	624.82	677.16	642.90	651.69
Documentary stamps.....	50,976.47	17,048.66	8.60	5.12	.....
Proprietary stamps.....	9,505.35	1,761.99	.....	.....	.....
Corporation tax.....	.....	.....	.....	.....	.....
Total.....	102,182.63	70,235.22	40,090.45	44,632.52	44,230.43
Disbursements (salaries and expenses).....	11,837.22	9,521.33	10,289.87	10,810.07	10,969.70
Net.....	90,345.41	60,713.89	29,800.58	33,822.75	33,260.73

Receipts.	1906.	1907.	1908.	1909.	1910.	Total.
Collections on lists (fines and penalties).....	\$1,069.35	\$2,205.36	\$4,694.87	\$5,308.07	\$4,675.80	\$32,633.40
Fermented liquor.....	14,770.00	16,360.00	12,634.00	14,018.35	13,616.00	130,118.39
Distilled spirits.....	9,351.76	11,674.85	15,175.71	37,569.53	36,698.01	128,069.32
Cigars and cigarettes.....	33.07	74.42	85.43	36.09	4,822.10	10,066.96
Tobacco and snuff.....	2,438.51	2,339.37	2,334.53	2,243.64	2,137.55	27,555.16
Special taxes.....	14,211.66	14,805.86	21,019.50	19,140.31	19,185.27	176,802.06
Playing cards.....	876.58	814.20	884.10	792.00	765.60	8,581.62
Documentary stamps.....	.....	.....	.....	.....	1.00	68,039.85
Proprietary stamps.....	.....	.....	.....	.....	.....	11,267.34
Corporation tax.....	.....	.....	.....	.....	124,201.18	124,201.18
Total.....	42,750.93	48,274.06	56,828.14	79,107.99	209,132.51	737,465.18
Disbursements (salaries and expenses).....	11,062.57	11,259.32	11,508.87	13,450.82	15,023.64	115,783.41
Net.....	31,688.36	37,014.74	45,319.27	65,657.17	194,108.87	621,681.77

UNITED STATES CLIMATOLOGICAL SERVICE.

There are 155 rainfall and 52 temperature stations from which the data are published monthly, 6 of the former and 1 of the latter having been established, and 2 of the former and 1 of the latter having been discontinued, during the year. The ocean meteorological work has been extended. Thermometers and barometers are compared. Daily, weekly, and monthly reports are issued. The records are frequently consulted by plantation interests, hydrographic engineers, lawyers, physicians, and others.

The only considerable loss due to weather conditions was in Waipio Valley on the island of Hawaii, where rice fields were damaged by flood waters due to a so-called cloud-burst.

Very respectfully,

W. F. FREAR,
Governor of Hawaii.

The SECRETARY OF THE INTERIOR.

APPENDIX.

TERRITORIAL REGISTER AND DIRECTORY.

TERRITORIAL OFFICIALS.

EXECUTIVE.

W. F. Frear, governor.	J. H. Fisher, auditor.
E. A. Mott-Smith, secretary.	E. A. Mott-Smith, president board of health.
A. Lindsey, jr., attorney-general.	W. Henry, high sheriff.
D. L. Conkling, treasurer.	H. P. O'Sullivan, private secretary to governor.
M. Campbell, superintendent of public works, commissioner of public lands, surveyor.	
W. T. Pope, superintendent of public instruction.	

DELEGATE TO CONGRESS.

J. K. Kalaniana'ole.

JUDICIAL.

A. S. Hartwell, chief justice, supreme court.	S. B. Kingsbury, judge, second circuit, Wailuku, Maui.
A. Perry, associate justice, supreme court.	J. A. Matthewman, judge, third circuit, Kailua, Hawaii.
J. T. De Bolt, associate justice, supreme court.	C. F. Parsons, judge, fourth circuit, Hilo, Hawaii.
H. Smith, clerk, judiciary department.	J. Hardy, judge, fifth circuit, Lihue, Kauai.
H. E. Cooper, first judge, first circuit.	
W. L. Whitney, second judge, first circuit.	
W. J. Robinson, third judge, first circuit.	

LEGISLATIVE.

Senate.—W. O. Smith (president), D. K. Baker, J. T. Brown, O. F. Chillingworth, W. J. Coelho, G. H. Fairchild, F. R. Harvey (since deceased), S. E. Kalama, E. A. Knudsen, R. H. Makekau, H. T. Moore, C. J. McCarthy, E. W. Quinn, W. T. Robinson, P. P. Woods. (W. Eavidge, clerk.)

House.—H. L. Holstein (speaker), G. F. Affonso, E. B. Carley, A. D. Castro, J. C. Cohen, J. H. Coney, S. P. Correa, E. A. Douthitt, M. T. Furtado, J. K. Hihio, G. H. Huddy, A. S. Kalei'opu, D. K. Kama, D. Kamahu, J. K. Kamanoulu, H. M. Kaniho, H. L. Kawewehi, M. K. Kealawaa, J. W. Kawaakoa, R. Kinney, E. L. Like, E. A. C. Long, M. K. Makekau, J. W. Moanauli, J. Nakaleka, R. J. K. Nawahine, C. A. Rice, W. J. Sheldon, R. W. Shingle, M. P. Waiwai'ole. (E. Woodward, clerk.)

MISCELLANEOUS.

NATIONAL GUARD OF HAWAII.

General staff.—Colonel and adjutant-general, chief of staff, J. W. Jones; lieutenant-colonel and surgeon-general, C. B. Cooper; lieutenant-colonel and quartermaster-general, J. W. Short; lieutenant-colonel and paymaster-general, J. H. Fisher; lieutenant-colonel and chief engineer officer, M. Campbell; major, W. L. Moore; captains, E. C. Peters, E. T. Winant, G. E. Smithies.

Lieut.—Colonel, C. W. Ziegler; lieutenant-colonel, A. Coyne; majors, W. R. Riley, G. Rose; captains, W. A. Fetter, W. E. Bal, M. M. Johnson, T. P. Cummins, C. M. Coster, A. W. Neely, E. T. Simpson, F. B. Angus, J. A. Thompson, S. Keliinoli, B. Ka-ne, J. W. Cook, J. Camara, E. Hopkins.

BOARD OF COMMISSIONERS OF AGRICULTURE AND FORESTRY.

M. Campbell (president), D. P. R. Ieenberg, H. M. von Holt, A. Waterhouse, J. M. Dowsett, commissioners; R. S. Hosmer, superintendent of forestry; E. M. Ehrhorn, superintendent of entomology; V. A. Norgaard, superintendent of animal industry and territorial veterinarian.

BOARD OF IMMIGRATION.

E. H. Wodehouse (superintendent), R. Ivers, A. M. McBryde, A. L. C. Atkinson, J. J. Carden; Victor S. Clark, executive officer.

BOARD OF COMMISSIONERS OF PUBLIC ARCHIVES.

E. A. Mott-Smith, chairman ex officio; W. D. Alexander and G. R. Carter, commissioners; R. C. Lydecker, secretary.

REGENTS OF COLLEGE OF AGRICULTURE AND MECHANIC ARTS.

H. E. Cooper (chairman), C. M. Cooke, A. Gartley, R. S. Hosmer, regents; J. W. Gilmore, president of the college.

LIBRARY TRUSTEES.

W. L. Whitney, W. F. Dillingham, and W. H. Babbitt.

FEDERAL OFFICIALS.

DEPARTMENT OF JUSTICE.

United States district court.—S. B. Dole and A. G. M. Robertson, judges; R. W. Breckons, district attorney; W. T. Rawlins, assistant district attorney; E. R. Hendry, marshal; A. E. Murphy, clerk.

TREASURY DEPARTMENT.

Customs Division.—E. R. Stackable, collector; R. C. Stackable, special deputy collector; R. Sharp, chief examiner.

Internal Revenue Service.—W. F. Drake, collector; R. S. Johnstone, chief deputy collector.

Public Health and Marine-Hospital Service.—C. Ramus, passed assistant surgeon, chief quarantine officer; D. H. Currie, director leprosy investigation station.

DEPARTMENT OF COMMERCE AND LABOR.

Immigration Service.—R. C. Brown, inspector in charge.

United States Light-House Establishment.—Lieut. V. S. Houston, U. S. Navy, inspector, nineteenth light-house district, commanding S. S. *Kukui*.

Navigation Bureau.—H. N. Almy, shipping commissioner.

DEPARTMENT OF AGRICULTURE.

Hawaii Experiment Station.—E. V. Wilcox, special agent in charge; J. E. Higgins, horticulturist; F. G. Krauss, agronomist; W. P. Kelley, chemist; D. T. Fullaway, entomologist.

Weather Bureau.—W. B. Stockman, section director.

NAVY DEPARTMENT.

Naval station, Honolulu.—Rear-Admiral O. P. Rees, commandant; Maj. C. G. Long, U. S. Marine Corps, commanding United States marine battalion; A. O. Lewerenz, U. S. Navy, civil engineer.

WAR DEPARTMENT.

Schofield Barracks.—Col. W. S. Schuyler, Fifth Cavalry, commanding.

Fort Shafter.—Maj. S. W. Dunning, Twentieth Infantry, commanding.

Fort Ruger.—Capt. E. J. Timberlake, Coast Artillery Corps, commanding.

Pay Department.—Maj. J. T. Hains, paymaster.

Corps of engineers.—Maj. E. E. Winslow, corps of engineers, United States district engineer.

Quartermaster Department.—Capt. J. C. Castner, constructing quartermaster; Capt. M. N. Falls, depot quartermaster.

Commissary Department.—Maj. W. H. Hart.

POST-OFFICE DEPARTMENT.

F. J. Hare, post-office inspector in charge; G. W. Carr, assistant superintendent Railway Mail Service; J. G. Pratt, postmaster, Honolulu.

REPORT OF THE GOVERNOR OF NEW MEXICO.

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REPORT OF THE GOVERNOR OF NEW MEXICO.

EXECUTIVE OFFICE,
Santa Fe, N. Mex., September 15, 1910.

SIR: I have the honor to submit herewith my annual report on conditions in the Territory of New Mexico during the fiscal year ended June 30, 1910.

Conditions as a whole in the Territory have been about the same as during the previous year.

No new railways were constructed in the Territory during the past twelve months.

The work of building dams for the impounding of flood waters and irrigation canals for carrying the waters so impounded on lands to be cultivated has been actively prosecuted in several parts of the Territory. Irrigation systems are rapidly being extended, enlarged, and improved, and much water is being pumped from wells near Deming and Portales which is used for irrigation purposes. At Portales about 70 wells are being pumped with power supplied by electricity generated by a central plant. The attempt is also being made to supply water to the rich Estancia Valley from wells, the power with which the pumps are to be operated to be supplied by a central electrical station. This last project has not as yet sufficiently developed to determine whether or not it will be a success.

The project for the construction of the Elephant Butte dam, which is to be built by the National Government in the lower Rio Grande Valley, has made substantial progress during the last year, not in actual work on the dam, but in the preparatory work. The owners of certain lands which will be submerged by the waters impounded by the dam declined to accept the offer made by the Government for it, and resort had to be had to the courts, when the necessary land was condemned and about \$200,000 was paid into court to meet the award made by the appraisers. The necessary work preliminary to the building of the dam is now being actively prosecuted, and it is expected that everything will be in readiness to begin the construction of the dam across the Rio Grande during the early part of the year 1911, when no water is flowing in the river. When completed, this project will greatly increase the population of the Territory.

Large irrigation works are now under construction in Colfax, San Miguel, San Juan, and Guadalupe counties, while smaller enterprises are being undertaken in nearly every county in the Territory.

During the year only about 20,000 acres have been set aside under the so-called Carey Act. Individuals and corporations have made applications for lands under this act, but as yet these applications have not been granted by the Carey Act land board.

Business in general in the Territory during the last year has been rather dull. During July, August, and September of last year business was exceedingly good, but in common with most of the country after that time it quieted down and probably will not resume its activity until business conditions change in the country at large. No banks or large mercantile establishments have failed since the last report of the governor was made. No banks have discontinued business during the year, while on the other hand 6 banks have been established. Three small territorial banks are in process of liquidation.

Operations in all of the coal camps have been actively pushed during the year. New Mexico has the largest coal measures of any State or Territory in the Union, and our production will be expanded to an almost unlimited extent as markets are found for the product.

The lumber business in the Territory has been prosperous during the last twelve months. There is a general demand for railroad ties, and the prices have gone up considerably.

The good-roads commission, consisting of the governor, the territorial engineer (the active member), and the commissioner of public lands, has done excellent work since the last report of the governor was made to your office. Several of the counties in the Territory have appropriated considerable sums of money to be spent under the supervision of the good-roads commission in improving their highways, and numerous other counties have expressed the desire to do so. The most important work of road building done under our supervision during the year is the Picacho Hill road from Roswell in Chaves County to Lincoln, the county seat of Lincoln County; the La Bajada Hill road between Santa Fe and Albuquerque; and the road between Silver City in Grant County and the great mining camps in the Mogollon Mountains. The first two of these enterprises have been finished and are monuments to the ability of the engineers who laid them out and supervised the work. The Silver City-Mogollon road it is estimated will be completed about June 1, 1911.

Since the creation of the good-roads commission in 1909 it has examined over 1,000 miles of road and has actually surveyed and platted over 500 miles additional. All of the work done under the supervision of this commission is of a substantial character. It is our intention within a very few days to again begin work upon that part of the scenic highway between Santa Fe and Las Vegas, and keep at it until it is completed. This will make one of the most beautiful roads in the country and is bound to bring many automobile tourists into the Territory, as the scenery is unsurpassed and there are many historic points of interest in both Las Vegas and Santa Fe counties. It is intended to build this road, which is known as the "Camino Real," from the territorial line near Raton to El Paso. It will be some years before the entire road is completed, but it will be done.

I am pleased to say that the normal school situated at El Rito, in Rio Arriba County, is doing good work. An institution such as this, located in the midst of a county the population of which is composed largely of Spanish-Americans, was greatly needed, as it teaches the children English and will graduate many who will be qualified to instruct the young in our sparsely settled rural communities, where teachers are most needed.

During the year our schools have improved greatly and will, I think, continue to improve for many years to come, as the board of education is constantly raising the standard required of teachers before they are licensed to follow their profession.

We have been unfortunate in having during the year two fires which destroyed Lea Hall, used by the New Mexico Military Institute at Roswell, and Hadley Hall, located on the campus of the University of New Mexico at Albuquerque. The fire at the military institute occurred early in September, 1909, and destroyed Lea Hall, the original building of the school. This building was formerly used as a dormitory, but at the time of the fire was used for class rooms and a library. Immediately on its destruction the people of Roswell indorsed notes for the sum of about \$40,000 to raise the necessary funds and erect a new building for the use of the school. This building has now been completed, is a substantial structure, and reflects credit not only on the school but on the citizens of the entire Territory. When the legislature meets no doubt an effort will be made to have the Territory pay for this building, and in my opinion it should do so, for it would be wrong to compel private citizens to pay for a building which is used for educational purposes by the entire Territory.

Hadley Hall of the University of New Mexico was burned late in May, 1910, just after the commencement exercises of that institution had been held. The loss of this building was a serious one, as much of the apparatus and scientific instruments belonging to the university were ruined. Steps have been taken by the regents of the university to replace this building, and doubtless the work of the institution will not be seriously interfered with during the coming school year.

POPULATION.

The census of 1910 shows that the population of the Territory is 327,396, an increase during the last decade of over 67 per cent. This is probably as large a percentage of increase as will be shown by any of the States and is a bright augury of what New Mexico will be in the future.

The land offices show that 520,145 acres have been proved up and 1,800,686 acres entered from June 30, 1909, to June 30, 1910. The population now coming into the Territory is of an excellent class. Many settlers who came without means and entered lands have sold their relinquishments to persons who have ample funds with which to improve the lands and place them in a proper state of cultivation. So-called dry farming is being thoroughly tested in the Territory, and in the northern parts where the heat is not too great and other conditions are favorable bids fair to prove a success.

There is a great demand for irrigated lands at constantly advancing prices, and this demand seems bound to continue so long as products of the farm command anything like their present prices.

A new land office has been located at Fort Sumner, authorized at the last session of Congress, but it will not be opened for business till October 1 of the present year.

STATEHOOD FOR NEW MEXICO.

On June 20, 1910, the President approved an act of Congress providing for the admission of New Mexico to the Union. An election has been called for September 6, at which delegates will be chosen to the constitutional convention, to assemble October 3. It is confidently expected that this convention will frame a proper constitution, which will not only be adopted by the people but which will receive the ready approval of the President and Congress, thus extending to this Territory the privileges and benefits of full citizenship in the sisterhood of States. New Mexico's struggle for statehood has been a long one. During the period of waiting our people have had opportunity to understand the advantages of the state over the territorial form of government and have welcomed the passage of the enabling act with gratitude. Fully alive to the responsibilities involved, they are approaching the task of forming and adopting a constitution with thoughtfulness and care. Already the near approach of statehood has had a perceptible influence upon industry and general business conditions, and we look forward, with every reason, to a period of great industrial development and prosperity following the completion of the state government.

IMMIGRATION.

The immigration movement to New Mexico which set in during 1906 continues with little abatement as regards the dry-farming districts and is increasing rapidly to the irrigated districts and to the towns.

Two successive unfavorable years in the dry-farming districts of central, eastern, and southeastern New Mexico have resulted in a sharp falling off in the rate of immigration to these districts and some loss of population. The movement to the dry-farming sections of northern and northeastern counties, however, has continued practically as heavy as during the previous three years, while the immigration to our irrigated districts has increased so rapidly as to more than counterbalance the decline in those dry-farming sections where conditions have been unfavorable. Heretofore the acreage available in our irrigated districts has been limited, but with the opening of new irrigation projects, a number of which have been completed during the past two years, there has been a marked activity in the sale of irrigated land and a consequent increase in population in these districts of a most desirable class. The greater portion of it has come from the Central and Eastern States, although a considerable number of farmers and investors have come from the irrigated regions north and west of New Mexico, while there has been some immigration to the Las Cruces and Pecos Valley districts from the Southern States. These people, for the most part, are actual farmers who have taken up their homes on the land, resulting in an important increase in the irrigated acreage under actual cultivation. Hundreds of acres of young orchards are being planted. The total value of the fruit crop in New Mexico for the present year is estimated at \$800,000, as against approximately \$200,000 in 1900, and with the acreage of young orchards now being cultivated the annual production may be expected to reach \$2,000,000 within the next five to six years.

Unfavorable conditions in a large portion of the dry-farming area checked the immigration to these districts, and from approximately

15,000 homestead entries in 1907-8 there were only approximately 9,000 entries in 1908-9. Up to this time a severe drought has prevailed this season over the central, eastern, and southeastern counties; yet in spite of this there has been a total of 9,775 original entries during the fiscal year ended June 30, 1910. A considerable floating or speculative population settled in the eastern and southeastern counties during the homestead rush which set in during 1905-6, and many of these people have taken leaves of absence from their homesteads or have definitely abandoned them during the present year. The movement was to have been expected, for in spite of all warnings many of these settlers took up homesteads in districts where the rainfall was known to be insufficient. A majority of the people who have gone out came to the country without the means to tide them over an unfavorable year and without any adequate knowledge of the principles of dry farming. This outgoing movement, however, has been more than counterbalanced by the immigration to the proven dry-farming districts and to the irrigated districts.

A most encouraging feature in considering the homestead land movement is the number of entries upon which final or commutation proof has been made during the present fiscal year. The number of these is 3,224, covering an area of 520,145.16 acres, greater in number and acreage than during any similar period since the beginning of the homestead movement to this Territory.

The following table shows the number of each class of land entry and the acreage under each in the five New Mexico land offices for the fiscal year ended June 30, 1910.

Land entries during fiscal year ended June 30, 1910.

Land office.	Original homestead entries.		Final and commuted homestead entries.		Original desert entries.	
	Number.	Acres.	Number.	Acres.	Number.	Acres.
Santa Fe.....	1,646	282,433.08	779	119,667.20	212	31,708.30
Las Cruces.....	576	81,332.30	186	27,200.71	250	48,031.26
Roswell.....	1,022	157,463.44	1,107	171,241.93	221	34,968.19
Clayton.....	556	88,900.00	440	90,400.00	104	16,640.00
Tucumcari.....	446	67,371.62	657	103,931.92	8	1,363.44
Total.....	4,286	677,560.44	3,169	512,441.76	795	132,706.18

Land office.	Final desert entries.		Enlarged (320-acre) homestead.		Other entries.	
	Number.	Acres.	Number.	Acres.	Number.	Acres.
Santa Fe.....	6	760	.....	.....	33	3,800.00
Las Cruces.....	7	800	.....	.....	195	31,578.05
Roswell.....	42	6,144	1,372	284,700.46	451	130,653.01
Clayton.....	.....	.....	1,678	376,320.00	.....	.....
Tucumcari.....	.....	.....	955	161,919.36	10	1,648.29
Total.....	55	7,704	4,005	822,939.82	689	167,480.26

	Number.	Acres.
Total original entries, all classes.....	9,775	1,800,686.09
Total final entries, all classes.....	3,224	520,145.76
Grand total, all filings of record.....	12,999	2,320,832.45

There remain open to entry in New Mexico approximately 36,000,000 acres of public land. Much of this land is mountainous, is classed as mineral land, is within national forests, or is suitable only for grazing, yet the most conservative estimates indicate that from 8,000,000 to 10,000,000 acres are adapted to some form of farming.

The following table shows the acreage by counties under each of the five land districts of surveyed and unsurveyed public land open to entry July 1, 1910:

Unappropriated public lands in New Mexico.

SANTA FE LAND DISTRICT.

County.	Surveyed.	Unsurveyed.	Total.	Brief description.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	
Bernalillo.....	127,020	76,800	203,820	Timber, grazing, agricultural.
Colfax.....	48,000	.....	48,000	Mountainous, grazing, and coal lands.
Guadalupe.....	1,018,760	29,440	1,048,200	Grazing and agricultural.
McKinley.....	461,600	145,280	607,520	Mountainous, timber, grazing, coal.
Mora.....	105,600	81,360	186,960	Timber, grazing, agricultural.
Rio Arriba.....	457,500	804,140	1,261,640	Mountainous, grazing, agricultural, coal.
Sandoval.....	277,760	360,960	638,720	Mountainous, grazing, agricultural, coal, mining.
San Juan.....	852,780	1,026,400	1,879,180	Grazing and agricultural.
San Miguel.....	404,390	167,650	572,010	Timber, grazing, agricultural.
Santa Fe.....	206,800	14,080	220,880	Mountainous, grazing, coal, mineral.
Socorro.....	896,300	79,680	976,040	Do.
Taos.....	257,880	574,080	831,960	Mountainous, grazing, timber, agricultural.
Torrance.....	793,340	232,960	1,026,300	Timber, grazing, agricultural.
Valencia.....	1,051,760	139,920	1,191,680	Do.
Total.....	6,959,520	3,733,390	10,692,910	

ROSWELL LAND DISTRICT.

Chaves.....	2,419,707	1,286,800	3,716,507	Grazing, rolling, prairie.
Eddy.....	1,154,261	2,024,160	3,178,421	Mostly prairie, timber in mountains.
Guadalupe.....	72,831	.....	72,831	Undulating, grazing, prairie.
Lincoln.....	1,454,157	413,880	1,868,037	Grazing land, timber in mountains.
Otero.....	.....	761,600	761,600	Do.
Roosevelt.....	69,570	44,000	113,570	Prairie, grazing land.
Torrance.....	158,290	.....	158,290	Do.
Curry.....	50,881	6,000	56,881	Agricultural, prairie.
Total.....	5,379,697	4,546,440	9,926,137	

LAS CRUCES LAND DISTRICT.

Dona Ana.....	1,837,984	230,400	2,068,384	Grazing, mountains.
Grant.....	1,274,654	1,668,490	2,917,144	Agricultural and grazing, mountains.
Luna.....	1,134,799	472,240	1,607,039	Do.
Otero.....	872,772	636,860	1,509,632	Do.
Sierra.....	1,072,063	92,160	1,164,223	Grazing, mountains.
Socorro.....	2,905,159	1,414,310	4,319,469	Agricultural and grazing, mountains.
Total.....	9,070,431	4,515,460	13,585,891	

CLAYTON LAND DISTRICT.

Union.....	1,233,144	.....	1,233,144	Grazing and agricultural.
Colfax.....	293,880	.....	293,880	Do.
Mora.....	116,060	.....	116,060	Do.
San Miguel.....	51,720	.....	51,720	Do.
Total.....	1,694,864	.....	1,694,864	

Unappropriated public lands in New Mexico—Continued.

TUCUMCARI LAND DISTRICT.

County.	Surveyed.	Unsurveyed.	Total.	Brief description.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	
Curry.....	2,888		2,888	Agricultural and grazing.
Guadalupe.....	41,268	46,090	87,348	Do.
Quay.....	301,438	5,120	306,558	Do.
San Miguel.....	17,546	7,530	25,076	Do.
Union.....	109,352	23,680	133,032	Do.
Total.....	472,460	82,410	554,900	

Total, all lands open to entry in New Mexico on July 1, 1910, 36,454,692 acres.

One of the surest indications of increasing interest in New Mexico lands and resources is found in the rapid increase in the business of the bureau of immigration, an office maintained by the Territory to supply information to prospective home seekers and investors. The number of personal inquiries for information received by this bureau during the past year shows an increase of more than 200 per cent over the previous year, and this without any systematic advertising or exploitation of any kind.

The activity in land entries has made necessary the creation by Congress of a sixth land district, to be known as the Fort Sumner district, with headquarters at Fort Sumner, Guadalupe County. This office will open for business on October 1, 1910. It is probable, however, that one of the existing land offices, that at Tucumcari, will be closed within the next few years, a greater portion of the available agricultural land in that district having been filed upon. The public domain of New Mexico has been going at the average rate of 2,500,000 acres for the past five years, and as shown by the figures of the past year there has been little falling off in this average.

TERRITORIAL FINANCES.

The financial records for the year ended June 30, 1910, show the Territory, the several counties, and the territorial institutions to have been successful and prosperous, and their financial administration satisfactory in every way.

All appropriations have been paid promptly.

During the past year the territorial rate of taxation has been materially reduced, having been lowered to 11 mills from 14.45 the year previous—nearly a 24 per cent reduction. In this connection attention is called to the fact that property returns for taxation are made on a basis not exceeding 20 per cent of actual value. Were the returns made on a basis of full valuation the rate would amount to only 0.22 of 1 per cent.

All territorial institutions, penal, educational, charitable, and others, have lived within their incomes as fixed by legislative acts.

No deficiencies have occurred in any of the departments.

The territorial bonded debt has been decreased, interest payments promptly met, and the credit of the Territory generally improved.

Bonds issued by the Territory, counties, and municipalities, bearing low rates of interest, when offered for sale have been eagerly sought by the bond buyer.

On June 1, 1909, there were outstanding bonds of the Territory to the amount of \$1,104,500. During the year ended June 1, 1910, \$88,000 provisional indebtedness bonds, \$10,000 current expenses, and \$5,000 certificates of indebtedness have been paid and retired, leaving a total bonded indebtedness June 1, 1910, of \$1,001,500.

The Territory has no debts or obligations of a floating character and is strictly on a cash basis.

Substantial cash balances adequate for all purposes have been maintained, such cash balances being kept on deposit with approved banks, named as depositories of public funds, and amply protected by good and sufficient bonds, paying interest on daily balances at the rate of 3 per cent per annum.

The receipts and disbursements by the territorial treasurer for the year mentioned were as follows:

Balance on hand June 1, 1909.....	\$527, 198. 16
Receipts for the year.....	1, 032, 914. 63
	1, 560, 112. 79
Disbursements for year.....	1, 074, 963. 65
Balance on hand June 1, 1910.....	485, 149. 14
	1, 560, 112. 79

TERRITORIAL INSTITUTIONS.

Reviewing the financial transactions of the board of regents of the several territorial institutions, and taking into consideration their present financial condition, the conclusion is reached that the funds of the Territory expended in the maintenance of these institutions have been used economically and in the interest of the taxpayer.

The several institutions have been able during the year ended June 30, 1910, to live within the appropriations made for their support, supplemented by their incomes from lands granted by Congress, and the earnings derived in course of operation.

Two of our largest educational institutions, the New Mexico Military Institute and the University of New Mexico, have suffered heavy financial loss through destruction of buildings by fire. Both institutions were partially protected by insurance, but to replace these buildings additional appropriations will have to be provided by the next legislative assembly. The property holdings of the Territory, both for institutional and other purposes, have been increasing from year to year, and an inventory taken under date of June 30, 1910, shows that these holdings, based on conservative valuations, aggregate \$1,837,065.17.

The accumulation of this large amount of property has been through purchase with funds derived from taxation.

The Territory has other property holdings in lands, held in trust for the benefit of the various territorial institutions and for other purposes. These lands were granted to the Territory by Congress and amounted to 5,589,206 acres. Of this acreage there has been selected by the commissioner of public lands 5,583,626 acres, which selections have been approved by the Secretary of the Interior and title vested in the Territory. Of these lands 71,080.95 acres have been sold at an average price of \$3.22 per acre, leaving 5,512,545.06 acres valued at the lowest price at which they can be disposed of, \$3 per acre. These

lands represent a valuation of \$16,537,635.18. The revenue from these lands for the benefit of the institutions and other purposes for which granted amounts to over \$100,000 per annum. Last year actual receipts from this source reached \$109,396.92.

The receipts and disbursements for all territorial institutions for the year were as follows:

Aggregate balances on hand June 30, 1909.....	\$136, 199. 94
Receipts for the year.....	588, 436. 14
	724, 636. 08
Disbursements for the year.....	577, 662. 10
Aggregate balances on hand June 30, 1910.....	146, 973. 98
	724, 636. 08

COUNTY FINANCES.

A year ago the traveling auditor reported:

Financial conditions in the counties are in every way satisfactory. Systematic accounting is thoroughly established and the county treasurers make prompt monthly settlements with the Territory for all territorial taxes collected during the month; as also with the treasurers of municipalities and city school boards, and the rural schools, in which these officials are ex officio treasurers and collectors. All moneys in the hands of county treasurers are deposited with approved county depositories and protected by bonds with ample sureties given by both treasurers and depositories. Semi-annually audits of the books of the county treasurers are made by the traveling auditor, and it is a matter of gratification that during the past six years the taxpayer has lost no money by reason of the acts of careless, incompetent, or dishonest officials.

A review of the year's business in the several counties of the Territory shows a satisfactory condition to have been maintained throughout the year ended June 30, 1910.

Comparison of the two years indicates that the counties generally are in better financial condition now than a year ago. This is largely due to the steadily growing wealth of the several counties, a better showing being made as to the percentage of collection of taxes and other moneys, the requirement by the traveling auditor of monthly instead of quarterly settlements, and the more rigid requirements exacted by that official from county treasurers.

On July 1, 1909, there were aggregate balances in the hands of county treasurers to the credit of various county and school district funds amounting to \$1,032,009.39. During the year following there was collected and received by these officials from all sources the sum of \$3,482,783.07, and for the same period of time there was disbursed by these officials for all purposes a total of \$3,091,375.21, leaving balances July 1, 1910, aggregating the sum of \$1,423,417.25.

COUNTY BONDED INDEBTEDNESS.

During the year ended June 30, 1910, the several counties have materially increased their outstanding bonded indebtedness. This is also true with respect to school districts. Practically all of such new issues made during the past year were for improvement purposes. In only a few instances and for small amounts have bonds been issued for the purpose of refunding floating indebtedness.

A number of counties and also a few school districts have taken advantage of the maturing of the optional period and have refunded at lowerrates of interest. The average rate paid by counties and school districts on outstanding bonded indebtedness is 5.2 per cent. The larger issues of county bonds when refunded, as a rule, are refunded into 5 per cents, and at that rate bring a substantial premium, the smaller issues being sold at par.

The credit of all counties is now much better than in the past. The aggregate county bonded indebtedness amounts to \$3,360,260, which includes \$502,000 Santa Fe County Railroad debt and about \$58,000 Grant County railroad debt, provision for the payment of which is made in the enabling act, and which if deducted would leave the net aggregate bonded indebtedness of the counties \$2,800,260.

The aggregate bonded indebtedness of school districts is \$663,450.

ASSESSMENT OF PROPERTY FOR TAXATION.

The total assessed valuation of all property in the Territory subject to tax for the year 1909 was \$59,464,311.42, an increase over the year 1908 of \$6,938,016.41.

As property is only returned for taxation on a basis of one-fifth of actual value, the estimated value of the property of the Territory subject to taxation is in round numbers \$297,300,000.

The figures for the 1910 assessment are not yet available, but by reason of decrease in stock interests, on account of the curtailing of the range by the influx of settlers throughout the Territory, it is probable the assessment for the present year will be slightly decreased.

TAX LEVIES.

The levy for all territorial purposes for the present year has been fixed at 11 mills, while the average levy for all county purposes for the year is 21.44 mills, making a total of 32.44 mills for the support of territorial and county governments. This does not include special levies for the support of municipalities, city schools, and the rural school districts, which are local.

As a whole, tax levies have been reduced. This was brought about by the large reduction in the territorial levy, since in the counties, for county purposes only, the average shows a slight increase

BANKING INTERESTS.

On June 30, 1910, the banking interests of the Territory were represented by 81 institutions, 41 national and 40 territorial banks, with a total capitalization of \$3,302,650, and total resources and liabilities of \$25,329,893.

During the year 6 new banking institutions have been established and are in operation under the territorial banking act.

No failures have occurred in the ranks of either the national or territorial banks. At this time there are 3 small territorial institutions that under the direction of the bank examiner are in process of voluntary liquidation.

BUILDING AND LOAN ASSOCIATIONS.

There are at this time 14 building and loan associations operating in the Territory, which, with the exception of 2, are purely local in character. These institutions are prosperous and are economically managed, to the general benefit of the stockholders and patrons. They have combined resources and liabilities of \$1,259,584.57.

These institutions, the same as the territorial banks, are subject to examination by the traveling auditor, this Territory not having a separate banking department.

CORPORATIONS.

Some 250 corporations were either organized in New Mexico or admitted to do business in the Territory from other States and Territories during the fiscal year ended June 30, 1910.

The total authorized capital stock represented by these corporations is \$142,000,000. There has been a substantial gain in the fees derived from corporation filings and turned into the territorial treasury during the same period.

As indicated by the classified list below, the largest percentage of the corporations formed in or entering the Territory during the fiscal year 1910 come under the head of mining, milling, and smelting companies. Mercantile and manufacturing companies come second in the list and irrigation and improvement companies are third. These figures show a constant increase in the progress and development of the resources of the Territory. Large amounts of outside capital continue to come into the Territory.

A number of strong mining companies have been organized for operation in the Silver City district; several strong banking institutions have been incorporated during the year. Important manufacturing industries have been established, and the development of oil in the Territory is progressing, with very favorable outlook.

Several railroads have been organized during the past year, the most notable of which is the Arizona Eastern Railroad Company, which is a merger of Arizona and New Mexico lines, representing 1,875 miles of road. This merger has a strong capitalization, and will come into New Mexico at a point on the San Francisco River in the western part of the Territory and run northeast to Farmington, N. Mex., thus giving the western part of New Mexico a railroad which is much needed and will aid greatly in the development of mining and other industries in that section. This road will have 250 miles of branch lines and 450 miles of main line within this Territory.

Detailed statistics relating to corporations, number of filings made, amount of fees paid, etc., are given in the tables following, representing data compiled from the years 1909 and 1910.

Corporations authorized to do business.

Place of origin.	1909.		1910.	
	Number.	Authorized capital.	Number.	Authorized capital.
Foreign:				
Arizona.....	15	\$25,925,000	9	\$17,288,000
California.....	1			
Colorado.....	9	3,170,000	6	2,810,000
District of Columbia.....	1			
Delaware.....			1	10,000
Illinois.....	2		1	
Indiana.....			1	300,000
Iowa.....	1	25,000		
Kansas.....	1	120,000		
Maine.....	1	3,000,000	4	12,150,000
Michigan.....	1			
Minnesota.....	1	500,000	2	100,000
Mississippi.....	1	100,000		
Missouri.....	2	15,000	1	30,000
Nebraska.....	2			
New Jersey.....	1	500,000		
Nevada.....	1	2,000,000		
Pennsylvania.....	2			
Scotland.....			1	7,275,000
Texas.....	4	12,045,000		
West Virginia.....	1	6,000,000		
Wyoming.....	1	1,000,000	1	250,000
Total.....	48	54,400,000	27	40,213,000
Domestic.....	218	60,170,900	219	101,933,736
Grand total.....	266	114,570,900	246	142,146,736

Classification of corporation charters for the fiscal years 1909 and 1910.

Character.	1909.		1910.	
	Number.	Authorized capital.	Number.	Authorized capital.
Banks and trust companies.....	7	\$370,000	10	\$320,000
Benevolent, religious, social societies, etc.....	50	531,000	30	768,600
Building and loan associations.....	4	1,400,000	3	7,975,000
General industrial enterprises.....	29	21,991,000	29	8,812,000
Irrigation, horticultural and improvement companies.....	18	10,364,400	37	14,321,625
Live stock and ranch companies.....	9	1,100,000	6	319,500
Mercantile, manufacturing and publishing companies.....	52	2,968,000	47	3,319,000
Mining, milling and smelting companies.....	50	51,950,000	53	68,550,000
Real estate, abstract, and townsite companies.....	42	9,906,500	27	2,061,000
Railway companies.....	5	14,000,000	4	35,700,000
Total.....	266	114,580,900	246	142,146,736

Incorporation fees paid territorial treasurer for fiscal years 1909 and 1910.

Quarter.	1909.	1910.
First.....	\$4,370.00	\$4,205.00
Second.....	2,437.50	3,672.86
Third.....	4,045.00	7,659.00
Fourth.....	2,514.80	1,975.00
Total.....	13,367.30	17,511.86

INSURANCE.

For the year ended June 30, 1910, the receipts and expenditures of the department were as follows:

Receipts from all sources.....	\$38,057.38
Office expenses.....	\$5,619.65
Fire departments.....	12,750.00
New Mexico Firemen's Association.....	2,000.00
	20,369.65
Surplus.....	17,687.73

During the past fiscal year 3 life, 5 miscellaneous, and 1 fire insurance companies were admitted, and 1 fire and 2 life insurance companies have ceased transacting business.

The certificate of authority of 1 insurance company was revoked on November 12, 1909, for the violation of a ruling against the sale of special contracts, which ruling was accepted over the signatures and seal of the officers of the company, and for methods of dealing with the department which were far from being businesslike and honorable.

A life insurance company, on the legal reserve basis, is being formed at Roswell, N. Mex., under the name of the New Mexico National Life Insurance Company. It is proposed to have a paid-up cash capital and surplus of \$200,000 each.

Numerous so-called "interinsurance" concerns persist in soliciting business in this Territory in direct violation of law. The department is endeavoring to warn our citizens against them and these efforts are bearing fruit.

There are now operating in the Territory the following:

Life insurance companies.....	29
Fire insurance companies.....	35
Miscellaneous companies.....	21
Fraternal beneficiary societies.....	24
Total.....	109

The following table shows the extent of the insurance business in the Territory:

Insurance business.

LIFE INSURANCE.

Policies in force December 31, 1908.....	9,212
Policies in force December 31, 1909.....	10,154
Policies issued in 1909.....	2,232
Policies ceased in 1909.....	1,290
Amount of insurance in force December 31, 1908.....	\$21,747,359.00
Amount of insurance in force December 31, 1909.....	\$23,925,475.00
Losses incurred during 1909.....	\$220,367.24
Losses paid during 1909.....	\$199,928.99
Losses and claims unpaid December 31, 1908.....	11
Losses and claims unpaid December 31, 1909.....	15
Amount of losses unpaid December 31, 1908.....	\$29,500.00
Amount of losses unpaid December 31, 1909.....	\$49,444.00
Amount of insurance issued during 1909.....	\$5,101,762.00
Amount of premiums received during 1909.....	\$739,570.69

FIRE INSURANCE.

Amount of insurance written during 1908.....	\$32, 792, 160. 14
Amount of insurance written during 1909.....	\$33, 240, 313. 00
Losses incurred during 1908.....	\$385, 264. 57
Losses incurred during 1909.....	\$460, 642. 64
Losses paid during 1909.....	\$424, 099. 96
Premiums received during 1908.....	\$572, 564. 37
Premiums received during 1909.....	\$603, 977. 46

MISCELLANEOUS INSURANCE.

Premiums received during 1908.....	\$88, 151. 31
Premiums received during 1909.....	\$107, 265. 42
Losses paid during 1908.....	\$50, 206. 62
Losses paid during 1909.....	\$40, 203. 92

EDUCATION.

Educational advancement in New Mexico has been very gratifying during the past year. The marked improvement in county supervision is at the foundation of much that has made for this advancement. In the great majority of counties the rural schools have been really supervised and inspected as never before and more general interest has prevailed, better school buildings have been constructed, more sanitary conditions obtained, school attendance has been larger, and longer terms of school have been held.

CENSUS.

The census of August, 1909, reported 95,101 (93,894 in 1908) persons of school age (5 to 21 years). The public school enrollment, June, 1910, was 56,162 (47,989 in June, 1909). This indicates that 60 per cent of the scholastics (5 to 21 years) were enrolled in the public schools. Fully 5,000 persons listed on the school census were enrolled in private and sectarian schools. This advances our per cent of census enrolled to nearly 65 per cent. For the United States, as a whole, the per cent of census enrolled is about 70 per cent, but in the great majority of States the school census does not cover so wide a range of ages as it does in this Territory.

COMPULSORY EDUCATION.

Efforts to enforce the compulsory school law have brought results. The average attendance during the past year was 37,056, as compared with 29,547 for the year previous, or 66 per cent of the enrollment for 1909 and 1910, against 61 per cent for 1908-9. In this connection we must take into consideration the fact that there is a large amount of moving about in the Territory and that many families come to our Territory for the winter months only.

TEACHERS.

In all schools 1,462 teachers were employed during the past year (1,220 in 1908-9), 505 men and 957 women. In town, village, and city schools and in many rural schools the teachers in charge are strong in preparation and successful experience, coming from the various States of the Union with licenses secured on graduation

from accepted educational institutions or secured on state examinations. The real problem in New Mexico, as it is in every State, lies in the rural schools. To improve teachers in these schools the Territory requires institute attendance of at least ten days each summer and pays \$15 to each teacher holding a third-grade license who attends the institute for four weeks. During the past summer 1,276 teachers enrolled in our county institutes (1,109 in 1909), 591 attending for four weeks (353 in 1909), 165 attending for eight weeks—15 in Mora County, 50 in the New Mexico Normal University, 100 in the New Mexico Normal School. Teachers in city schools, where the superintendent gives at least half of his time to the actual supervision of the grade work are exempt from institute attendance. We challenge any State to show a better record of institute attendance, and attendance at institute is indicative of professional spirit—a desire on the part of our teachers to improve their scholarship and give more efficient service.

PROPERTY AND EXPENDITURES.

The value of public-school property is fully \$1,000,000; the bonded indebtedness, \$600,000. The expenditure for the support of our public schools during the past year was \$791,000, or a per capita expenditure of \$14 on the basis of enrollment.

DEPARTMENT OF EDUCATION.

The territorial department has issued recently, among other documents, a guide book for school directors, outlining their powers, duties, privileges, prohibitions, and citing the law in each case. Outlines of procedure are included, touching the most important items, and blank forms are shown covering public-school notices, blank contracts, etc. This manual has done much to systematize the management of the local schools and has secured action on matters that make for efficiency.

Since the certification of teachers was placed with the territorial department of education in 1907, 3,500 county licenses have been issued. In addition, the territorial board of education has granted 240 professional certificates, 90 of which are life licenses.

The county superintendents' visiting record issued by the department has served to call the attention of all county superintendents to the items that should be noted while visiting schools. This means that details have been attended to and more real improvement is the result.

One year ago the department issued the first common-school course of study for New Mexico. Last June eighth-grade examinations based on this course of study were held in the various counties. The general interest in examinations is positive proof that the manual is serving to standardize our common-school work and to give the children a more balanced school training.

UNIVERSITY OF NEW MEXICO, ALBUQUERQUE

The University of New Mexico was founded in 1889 and opened for work in June, 1892, as a normal school. In September of the same year the preparatory school was opened, and in the following

year a commercial department was added. In 1902 a start was made in regular college work, and at the present time the university consists of the following units: College of letters and arts, college of science and engineering, school of education, commercial school, and preparatory school. Seven buildings of varying size and style surround the campus. The enrollment for the year 1909-10 was 132. The faculty consists of 15 members. The buildings, real estate, and improvements are valued at \$117,000.

NEW MEXICO NORMAL UNIVERSITY, LAS VEGAS

The New Mexico Normal University, established in 1893, graduated its first class in 1889. It has an alumni list of 112. There are 17 professors and teachers, graduates of colleges and normal schools of high rank. The school maintains the following departments: Normal, academic, teachers' training, music, domestic science, stenography, and kindergarten. Value of the property, \$97,756.21. The school year has been divided into three terms in order to accommodate teachers who teach a fall or spring term.

Alumni.....	101
Graduates, current year.....	11
Kindergarten roll.....	26
Training-school roll.....	119
Normal proper.....	113
Special Spanish-American department.....	42
Summer school.....	69
Correspondence students.....	2
Number catalogued.....	483

There are 14 members of the faculty, 4 of whom are engaged in training-school work.

NEW MEXICO NORMAL SCHOOL, SILVER CITY.

For the scholastic year which will end July 31, 1910, the sixteenth annual session, the statistics are as follows:

Statistics of New Mexico Normal School, Silver City.

Alumni of the school.....	120
Number graduated the current year.....	8
Training-school roll.....	99
Enrollment in normal proper.....	77
Summer-session roll.....	111
Those taking work by correspondence.....	27
Total number catalogued.....	381

Every county except Mora was represented.

There are 13 members of the faculty, 4 of which are connected with the training school and 9 with the normal proper.

Estimated value of buildings.....	\$85,000.00
Estimated value of furniture and apparatus.....	15,000.00
Estimated value of library.....	6,000.00
Estimated value of campus.....	10,000.00

NEW MEXICO MILITARY INSTITUTE, ROSWELL.

The New Mexico Military Institute was established in 1895 and opened to students September 1, 1898. It began its history with but one building, a four-story brick, which was destroyed by fire at the opening of the last session. The institute now owns 9 large buildings, 2 of which—Hagerman Barracks and Lea Hall—are specially large and handsome. Lea Hall was erected at a cost of more than \$60,000 to take the place of the building burned last fall. The buildings and grounds are valued at \$250,000.

The institute is recognized as a "distinguished institution" by the United States War Department. This places it among the first 10 military schools of the United States. One of its honor graduates is commissioned as second lieutenant in the United States Army each year and many of its graduates are holding commissions as officers in the Philippine Constabulary and other branches of the Government's military service.

For several years the institute has been forced to reject many applicants on account of limited quarters. Last year 172 cadets were admitted, which was the full capacity of the barracks. Day students are not admitted, all students being required to live in barracks and remain under garrison duty at all times. The faculty is composed of 14 men, all of whom are college bred and specially trained for the particular work assigned.

SCHOOL OF MINES, SOCORRO.

The School of Mines was established in 1889. The total enrollment of students during the last year was 52; the faculty consisting of 7 members. The graduates of this school have a wide and remunerative field to enter and there is a constant and growing demand for the services of mining engineers in New Mexico and Arizona, as well as in the sister Republic of Mexico. The school is ideally located in a mining district, where the students may acquire practical as well as theoretical knowledge of mining. The value of buildings and improvements in \$82,000.

SPANISH-AMERICAN NORMAL SCHOOL, EL RITO.

This school was established in March, 1909. The object is to educate the Spanish-American young men and women of the Territory as teachers. Under the direction of Mrs. George Dixon the institution has proved a most valuable addition to the educational institutions of the Territory and is supplying the long-felt want in the country districts. During the last year the enrollment was 50. The faculty has been increased and the year's work will begin September 6. The buildings and real estate are valued at \$26,177.

COLLEGE OF AGRICULTURE AND MECHANIC ARTS, MESILLA PARK.

This institution was established in 1889. The faculty is composed of 38 members. Two hundred and seventy-one students were in attendance last year. The institution is supported jointly by the United States and by New Mexico, the grounds and buildings being

the property of the latter. There are 11 principal buildings, 3 of which were constructed during 1908 at a cost of \$55,000. The institution offers college courses in agriculture, and various branches of engineering, household economics, commerce, and general science. A series of industrial courses of high-school grade were recently added. These courses include agriculture, mechanics, business, and domestic science. There is also a preparatory course of high-school grade and courses in stenography. The buildings, grounds, and improvements are valued at \$240,542.

TERRITORIAL LANDS.

The leasing of public lands, conducted through the office of the commissioner of public lands, shows a gratifying growth during the past fiscal year, the number of leases in force on June 30, 1910, being 2,115, an increase of 111 over the number in force June 30, 1909, while the acreage leased on June 30, 1910, was 2,089,394.09, an increase of 144,812.15 acres over the corresponding period in 1909.

The financial affairs of the office are shown by the following statement for the fiscal year ended June 30, 1910:

Receipts and expenditures, office of commissioner of public lands.

RECEIPTS.

Balance on hand July 1, 1909.....	\$15,554.19
Receipts during year:	
Deferred notes.....	\$69,650.87
Interest on above.....	397.79
Applications, first payment.....	39,424.88
Assignment fees.....	50.00
Certified copies, plats, etc.....	24.80
Sale of land.....	4,534.23
Forfeitures.....	640.50
	114,723.05
Palace income fund.....	1,350.00
Proceeds 5 per cent sales United States lands.....	26,652.90
Total receipts for schools and institutions.....	158,280.14
Deposits made on account Carey Act projects.....	2,000.00
Transfers on books of office.....	56,901.34
Total receipts and transfers.....	217,181.48

PAYMENTS.

Transferred to credit of schools and institutions.....	111,341.88
Transferred to salary and expense fund.....	20,833.73
Withdrawals, cancellations, etc.....	3,953.75
Transfers on books of office.....	59,417.84
Balance on hand in banks and office June 30, 1910.....	21,634.28
Total.....	217,181.48

The following table shows the funds and accounts to which the balance remaining on June 30, of \$21,634.28, pertains:

Funds ready for transfer to territorial treasurer.....	\$3,003.08
Payments on applications awaiting approval of the Secretary of the Interior.....	11,692.68
Payments on applications not acted upon.....	2,795.90
Suspense account.....	2,142.62
Deposits, Carey Act projects.....	2,000.00

The expenses of the office for the fiscal year were as follows:

Salaries of regular force.....	\$9,537.10
Extra clerical help.....	90.50
Traveling expenses.....	763.88
Postage.....	394.58
Office supplies.....	229.80
Stationery.....	294.55
Telegraph and telephone.....	65.57
Printing.....	591.90
Publication of indemnity lieu-land lists	68.75
Bonds.....	150.00
Costs in escheat proceedings.....	137.07
Miscellaneous.....	16.45

Total expenses for year..... 12,340.15

The revenue of the office increased \$13,601.27 over the revenue for the corresponding fiscal year ending in 1909; the amounts transferred to the territorial treasurer increased \$9,084.99; and expenses decreased \$54.12.

UNITED STATES LAND COMMISSION.

During the past fiscal year the Secretary of the Interior has approved indemnity lieu-land selections made by the Territory aggregating 110,632.07 acres, making the total acreage of lieu lands approved on this date 164,687.98 acres.

The status of indemnity lieu-land selections is about as follows, as the exact amounts can only be closely approximated, except in case of actual approvals by the Interior Department:

	Acres.
Lands approved by the Interior Department.....	164,687.98
Lands selected by the Territory and not acted upon by the Interior Department.....	535,000.00
Lands remaining to be selected by the Territory on account of land grants, rejections by land offices, etc.....	81,000.00
Lands remaining in forest reservations and no action yet taken by the Territory toward selection.....	185,000.00
Making a total of lieu lands to which the Territory is entitled, including those in forest reserves, of approximately.....	966,000.00

During the past year selections have been made to clear up balances due the institutions, as follows:

	Acres.
University.....	962.45
Agricultural college.....	600.00
Normals.....	80.93
School of mines.....	160.00
Military institute.....	80.00
Insane asylum.....	1,800.00

The total of lands still due the various institutions is 2,006.71 acres, and this balance is being selected as rapidly as possible. During the past year 46,665.35 acres of saline lands were selected by the Territory on account of University of New Mexico.

FARMING.

IRRIGATED FARMING.

Agriculture has long since taken its place as the leading industry of New Mexico and is growing more rapidly in importance with each year. From less than 400,000 acres in cultivation in 1900 we now have close to 1,000,000 acres actually producing, and, with a number of new irrigation projects proposed and under way and the rapid extension of the dry-farming area, this will undoubtedly be doubled several times over during the next decade. The activity of private capital in the development of our irrigable lands is most gratifying and will result, we confidently expect, in placing New Mexico near the top of the roll of irrigated States during the next few years, both in acreage and production.

In 1900 our most careful estimates indicated a total irrigable area of not to exceed 1,000,000 acres. However, the thorough investigations which have been carried out during the past four years by the engineering department show conclusively that we have no less than 3,000,000 acres which may be reclaimed by practicable diversion, storage, and pumping projects.

The rapid and substantial development of our irrigated districts is due to the considerable number of practical farmers and fruit growers who are locating there. Under the United States Reclamation Service project at Carlsbad, Eddy County, the year has been a very favorable one. An auction sale of surplus lands under this project will be held August 24, 1910, to dispose of all holdings in excess of 160 acres, but from the present movement there will be practically no surplus lands remaining at that time. Farmers of this district have had an exceptionally prosperous year, and it is now estimated that several of them will actually pay the full purchase price of their lands from this year's crop. The production of alfalfa seed has developed into an important and very profitable industry in this district during the year.

Immigration into the artesian belt surrounding Roswell, Artesia, and smaller towns shows a steady increase. While land prices are advancing, there appears to be a steady demand, and the class of population coming in is composed of substantial farmers. The speculative element is rapidly disappearing from this district. A number of large tracts of land adjacent to Roswell have recently been sold and are now being cut up into small tracts. The sale of these lands will result in bringing many new farmers to the district during the coming year.

There has been an important land movement in the Mesilla Valley, surrounding and south of Las Cruces. This includes both lands already under irrigation and those which will come under irrigation under the completed Elephant Butte project, on which construction is now under way. Lands in this district are also advancing in price; the season has been favorable and production of all classes of crops excellent.

Activity in Colfax County irrigated lands has been considerable. Five new projects are now delivering water in this county, and the companies owning the land are enjoying a rapid sale to a most desirable class of purchasers, chiefly actual farmers. There is still a con-

siderable area in this county which will be reclaimed by private capital, plans for the most important projects having been completed.

It is now assured that an important irrigation project will be constructed at Las Vegas, which will deliver water to 18,000 acres in 1912. This will mean an important immigration movement to this district, in addition to the heavy movement to the dry-farming lands east of Las Vegas, which has continued during the past year.

San Juan County continues to attract the attention of high-class farmers and fruit growers. Lands in this county are selling rapidly, and the new irrigation projects now under way will add a very large acreage, which will be available within the next twelve or fifteen months. One of the first important projects under our new district irrigation law is under way in this county.

The Deming district in Luna County has shown remarkable activity. Demonstration of the feasibility of pumping for irrigation has given great impetus to land sales; new people have come in rapidly; acreage under cultivation has been extended, and the district is very prosperous.

At Portales, in Roosevelt County, an important central pumping plant has been completed, furnishing power to pump water for 10,000 acres of fine land. This project was not completed in time for this season's crop, but will be in active operation during the next season.

One of the most important developments of the year in irrigation has been the opening of the new Fort Sumner district in Guadalupe County, where 16,000 acres are already reclaimed by direct diversion from the Pecos River, and where a very large additional acreage will be brought under irrigation when water rights have been adjusted. Practically within a single year this district has advanced from open range to one containing some of the most highly cultivated and most profitable farms in New Mexico. Land prices have advanced from \$50 to as high as \$200 an acre in case of producing lands. The district is being settled by actual farmers, most of whom have sufficient capital for the proper and profitable development of their land.

Pumping for irrigation is now being investigated in the Estancia Valley, heretofore a dry-farming district. Test wells show a considerable volume of water, and it is hoped to reclaim some 20,000 acres by means of a central power plant.

An important private irrigation project is under way at Chama in Rio Arriba County, where private capital is developing a portion of the great Tierra Amarilla land grant, while another private corporation has undertaken the construction of irrigation works near Red River in Taos County for the reclamation of 35,000 acres of territorial land. There are many small private irrigation enterprises which might be enumerated and which in the aggregate have placed an extensive area under cultivation.

DRY FARMING.

The great increase in final and commuted homestead entries during the past year indicates that a very considerable part of the recent settlement within our dry-farming districts is permanent, substantial, and successful. Although dry farming is still experimental in many districts, and although it has been the policy of the territorial government not to encourage immigration into those districts which have

not been thoroughly tested, the immigrants have come voluntarily, and in many districts, particularly those in the higher altitudes, the farmers have become very prosperous. Successive droughts in the eastern and southeastern counties have discouraged many of the dry farmers in those sections; yet many have remained with their homesteads, and not a few have secured fair crops in spite of a rainfall which for two years has been far below the average.

The lack of knowledge of a majority of these people of the essential principles of dry farming, their ignorance of local conditions, of drought resistant crops, proper planting time, etc., have worked seriously against their success. Moreover, many of them have come into the country wholly without means, and dry farming, save in the higher altitudes of New Mexico, is not a "poor man's industry," for the farmer in the region of uncertain rainfall should have sufficient capital to see him through one and even two unfavorable seasons without a crop. The need of education in dry farming is imperative, and during the year the railroads entering New Mexico, appreciating this need, have taken steps to meet it. The Atchison, Topeka and Santa Fe Railroad is the pioneer in this movement, having placed in the field an agricultural demonstrator and assistants whose duty it is to instruct the people in the principles of dry farming, proper crops, time of planting, etc. The El Paso and Southwestern Railroad also has an agricultural expert in the field, as has the Southern Pacific system. The St. Louis, Rocky Mountain and Pacific Railroad has established a demonstration farm along its lines. This educational work is already having an important effect upon production.

IRRIGATION.

During the fiscal year ended June 30, 1910, our irrigation department received 158 applications to appropriate water covering 617,816 acres of land. Construction has begun under 20 of these applications, work under 6 more has been one-fifth completed, and 9 of the projects have been completed.

On the whole, progress in irrigation has been entirely satisfactory in spite of the severe slump in irrigation bonds precipitated by the failure of a large Chicago bonding house, which made a specialty of this class of securities. Notwithstanding the difficulty of floating irrigation securities, a number of our projects have been financed and construction has proceeded.

There has been a tendency to grasp public waters of the Territory in many instances by those desirous not to develop the lands, but to speculate in water rights, and to check this and also to curb an over-exaggeration of the water supply the irrigation engineer, with the approval of the board of water commissioners, has made a rule requiring a sufficient bond, in proportion to the volume of water asked for, to be executed in favor of the Territory, and which must be furnished by all applicants to appropriate water as a guaranty that the applicant will complete the project as proposed. This requirement is working admirably. Since its inauguration \$34,000 in such bonds have been filed with the engineer.

There have been 13 appeals from the decisions of the territorial engineer to the board of water commissioners, 6 of which were affirmed, 1 reversed, and 6 pending.

CAREY ACT.

The legislature of 1909 accepted the provisions of the Carey Act, and already we have two projects on which segregation has been asked for—one for the Lake Charette Irrigation Company of Springer, Colfax County, for 10,000 acres, and one for the Oasis Development Company of Artesia, Eddy County, for 10,000 acres. In addition to the above several more projects are now preparing to make applications for segregation, and the prospects are favorable for the construction of several Carey Act projects in the near future.

DISTRICT IRRIGATION PROJECTS.

Several important irrigation projects are proposed under the district irrigation law enacted by the legislative assembly in 1909. Two irrigation districts have been organized, and construction work now under way will be completed during the year 1911. These projects are the Orchard Irrigation District at Aztec, San Juan County, 12,000 acres, and the Las Vegas project, 18,000 acres, within the Las Vegas land grant, near Las Vegas.

RECEIPTS AND EXPENDITURES BY TERRITORIAL ENGINEER.

Total fees received by the territorial engineer and turned over to the territorial treasurer amounted to \$2,755.80, divided as follows:

Fees received.

	Applica- tions.	Record.	Exten- sion.	Miscella- neous.
1909.				
Third quarter.....	\$166.00	\$4.00	\$30.00	\$51.65
Fourth quarter.....	165.00	22.00	22.50	489.10
1910.				
First quarter.....	285.50	21.00	40.00	810.65
Second quarter.....	235.00	34.00	22.50	355.90
Total.....	861.50	81.00	115.00	1,708.30

The expenditures of the engineer's department, aside from special appropriations, are divided between traveling and contingent expenses, which are paid out of one fund and are not kept separate. The total expended for the past year was \$2,688.34.

STREAM GAGING.

The water-resources branch of the United States Geological Survey at Denver, Colo., has advised the irrigation engineer that New Mexico is doing more in the line of collecting accurate, official stream-flow records than any State on the eastern slope of the Rocky Mountains. The department has already installed 20 staff gages and 9 Friez automatic registers, where daily records are made of the flow of the water in 29 of the principal streams of the Territory. Three more automatic gages have been shipped for installation. The collection of this record in behalf of irrigation development is invaluable. The Santa Fe Railroad, seeing the value of this work, has contributed

\$1,000 to the fund of the Territory for this purpose. Private parties have contributed as high as \$500. The collecting of records by automatic gages is by the most approved scientific method. The United States Geological Survey cooperates in the work to the extent of an appropriation of \$2,500 annually.

Appropriations and expenditures, stream-gaging work.

Appropriations, fiscal year 1910:

Territory, 1909.....	\$2, 500. 00
United States Geological Survey, 1909.....	2, 500. 00
Atchison, Topeka and Santa Fe, 1909.....	1, 000. 00
	3, 500. 00

Expenditures, fiscal year 1910:

Territory, 1909.....	3, 485. 75
United States Geological Survey, 1909-10.....	2, 500. 00
Balance.....	14. 25
	3, 500. 00

Appropriations, fiscal year 1911:

Territory balance.....	14. 25
Territory, 1910-11.....	2, 500. 00
United States Geological Survey.....	2, 500. 00
Atchison, Topeka and Santa Fe.....	1, 000. 00
A. J. Meloche.....	250. 00
G. N. Wynkoop.....	500. 00
Thomas Lyons.....	51. 00
Do.....	48. 95
S. A. Wiseman.....	125. 00
	6, 989. 20

Expenditures, fiscal year 1911:

Territory.....	1, 041. 92
United States Geological Survey.....	206. 35
Balance, 1910-11.....	5, 740. 93
	6, 989. 20

ARTESIAN WELLS.

There are now more than 700 artesian wells flowing in Chaves and Eddy counties, irrigating approximately 30,000 acres, planted chiefly in alfalfa and orchards. The flow of these wells shows little diminution, although the use of water has doubled within three years past.

GOOD ROADS.

The construction of territorial roads under the direction of the good-roads commission created by the last legislature has proceeded rapidly. Over 1,000 miles of road have been inspected, 500 miles surveyed, and over 100 miles constructed. The principal work done is as follows:

Road work.

Name of road.	Length.	Amount completed.	Amount expended.
	<i>Miles.</i>	<i>Miles.</i>	
Raton-Colorado state line.....	10.0	10.0	\$5,143.53
Raton-Cimarron, surveyed.....	42.5	.....	331.15
Springer-Las Vegas, repaired.....	80.0	10.0	700.67
Las Vegas-Hot Springs, repaired.....	.....	3.0	1,578.91
Santa Fe-Albuquerque.....	65.0	39.0	14,664.95
Silver City-Mogollon.....	80.0	25.0	11,325.83
Roswell-Clisozo, surveyed and repaired.....	95.0	26.0	19,537.27
Santa Fe-Santa Cruz.....	25.0	.....	224.00
Las Vegas-Mora, surveyed.....	31.0	.....	675.35
Carlsbad-Monument.....	68.0	.....	232.85
Farmington-Gallup, inspected.....	.....	.....	.....
Deming and North, inspected.....	.....	.....	.....
Alamogordo-Cloudcroft, inspected.....	.....	.....	.....
Santa Fe-Las Vegas, inspected.....	.....	.....	.....

It has been the policy of the commission to construct the most difficult sections first, affording a demonstration of what can be done.

The interest taken by the people in this work is very gratifying. With the cooperation of the people and the counties along the various roads and by the use of convict labor we have been able to do a great deal more than we could have done otherwise. The people have contributed in places more money than we had allotted from the general territorial funds.

FOREST RESERVES.

There are now approximately 11,000,000 acres within national forests in New Mexico. There have been a number of changes in boundaries of the reserves during the year, considerable areas having been restored to the public domain and other areas taken into the forests. Administration of the reserves in this territory is through the district forester, with headquarters in Albuquerque. The placing of this administrative officer in the field has resulted in a much more satisfactory administration of the forests.

CATTLE.

During the year ended June 30, 1910, shipment of cattle has been heavy, 299,255 cattle and 10,988 horses having been inspected. Also 56,775 hides are reported for that period.

PRICES.

Prices are exceedingly good and show quite an improvement over last year. Yearlings brought \$18 to \$21, as against \$12 to \$17 in 1909. Two-year-olds sold at \$25 to \$28 against \$20 to \$26 in 1909, while 3-year-olds and up brought from \$35 to \$38 as against \$26 to \$35 at this time last year. Cows brought \$19 in the southern and \$25 in the northern portion of the Territory.

It has been exceedingly dry in the southern sections for the past two years, making shipping or handling of cattle very difficult, and losses have been sustained in these districts. Grass is reported in good condition in the northern and middle sections.

The general health conditions are excellent. Reports of losses from black leg become more and more infrequent, as necessary precaution of vaccinating calves is now pretty generally understood.

Range-inspection work was again taken up in cooperation with the United States Bureau of Animal Industry the past spring and inspection and dipping in the infected and quarantined districts have been carried on as rapidly as possible. The work is being somewhat delayed in the Pecos Valley on account of the lack of rain.

It is believed that we have practically stamped out the threatened epidemic of glanders on account of which a quarantine was placed on Quay and Roosevelt counties in December, 1908. Immediately upon report of a suspicious case it is placed in special quarantine and tested.

Thirty horses were condemned and killed in this district and the owners reimbursed for the same under the law. No new cases having been found among the animals held as suspicious upon a retest, it was deemed advisable to lift the quarantine, and the restrictions have been removed.

About December 1, 1909, the work of testing dairy cattle for tuberculosis in cities and towns of 500 or more inhabitants was commenced. This was carried on under the direct supervision of the United States Bureau of Animal Industry, Doctor Melvin, Chief of the Bureau of Animal Industry at Washington, furnishing all tuberculin and the veterinarians necessary for the work.

Seventy-three animals, cows and bulls, were found infected, condemned, and killed and the owners reimbursed according to law. About 5,000 animals were tested.

One thousand eight hundred and thirty-one certificates of brands recorded have been issued during the year ended June 30, 1910.

SHEEP.

Cooperation between the Bureau of Animal Industry of the Department of Agriculture and the New Mexico sheep sanitary board for the purpose of eradicating scabies from among the sheep in the Territory has been carried out for a number of years and was continued during the past year. Orders were issued July 1, 1909, requiring all sheep to be presented at dipping plants for dipping in accordance with instructions of inspectors and the cleaning and disinfecting of all infected corrals, which orders were strictly enforced. The Bureau of Animal Industry had a large force of inspectors in the field to supervise the dipping of all sheep, while the inspectors of the sheep sanitary board saw that all sheep were brought in to dipping plants. During the early part of last winter a reinspection was made and all sheep found infected were again required to be dipped under supervision. This spring all sheep were again reinspected and those found infected either dipped under supervision or placed in quarantine.

At the request of the sheep sanitary board, the Bureau of Animal Industry has again agreed to cooperate with the board on a similar plan during the present year, and a general order requiring all sheep to be dipped under supervision of bureau inspectors was issued June 15.

The drought in the spring of 1909 was very severe, losses were high, and the per cent of lambs raised comparatively small. The lambing this spring, 1910, was much better than for 1909, although drought conditions prevail, and in some sections practically no lambs have been raised. The per cent of lambs raised probably will be near 60.

Lambs sold last fall for from 4 to 6 cents per pound, netting the grower gross from \$1.75 to \$4 per head—better prices prevailing than during the previous year. During the year ended June 30, 1910, 719,444 head of sheep were shipped out of this Territory, about the same number as were shipped out during the previous year, the number shipped out during these years being much less than in former years. This decrease is owing to drought conditions which have prevailed, and to the heavy influx of home seekers who have taken up large areas of lands for farms which were formerly devoted to grazing sheep. The number brought in during the same period amounted to 29,983. There were probably 3,500,000 head of sheep on the range this spring, prior to lambing.

The wool clip shorn this spring amounts to about 18,000,000 pounds, practically none of which has been sold, the prices offered being from 5 to 7 cents per pound less than wool sold for during 1909.

PUBLIC BUILDINGS.

New Mexico has a well-constructed capitol building and an executive residence recently completed. An annex to the capitol is now nearing completion, and these buildings will cost, all told, \$255,356, this cost representing buildings, furnishings, and lands. The buildings are of excellent construction and their cost is very low. In addition to these and its institutional buildings the Territory owns 6 handsome national-guard armories, at Santa Fe, Las Vegas, Las Cruces, Roswell, Silver City, and Albuquerque, representing a total cost of \$101,476.

The total cost value of buildings, real estate, equipment, etc., of the various territorial institutions of all classes, exclusive of the capitol buildings, is \$1,837,065.17. This total does not include lands granted by Congress for the support of educational and other institutions.

NEW MEXICO PENITENTIARY, SANTA FE.

The conduct of the New Mexico penitentiary at Santa Fe has been satisfactory. During the year ended June 30, 1910, a substantial new guardhouse has been completed, a south wing, containing a new cell house, has been practically completed, and the institution is in excellent physical condition.

During the year several gangs of convicts have been employed in road construction, under direction of the territorial good-roads commission, and the work done by these convicts has been excellent. It has been found that small gangs of convicts can be worked successfully on the roads, and while there have been seventeen escapes from the road gangs, owing to the difficulty of guarding, eight of these prisoners have been recaptured. Prisoners sent out on road work are carefully selected and added precautions are being taken to prevent escapes.

The physical condition of the prisoners confined in the prison has been excellent, there having been few patients in the hospital and these chiefly accident cases. One death occurred during the year from disease contracted before the prisoner entered the penitentiary and one prisoner was killed by the overturning of a loaded wagon while at work on the Silver City-Mogollon road.

Following is a condensed financial statement for the year ending June 30, 1910:

Financial statement of territorial penitentiary.

July 1, 1909; balances in funds, as follows:

General maintenance.....	\$7, 685. 40
Convicts' earnings.....	4, 696. 07
Current expense.....	10, 501. 51
Penitentiary board.....	1, 415. 77
Income.....	127. 01
Transportation discharged convicts.....	422. 25
General maintenance deficiency.....	3, 634. 95
Permanent improvement.....	120. 00
	\$28, 602. 96

Receipts during year ended June 30, 1910:

General maintenance.....	39, 877. 53
Convicts' earnings.....	35, 897. 95
Current expense.....	21, 865. 04
Penitentiary board.....	1, 420. 84
Income.....	990. 48
Transportation discharged convicts.....	1, 292. 26
Cell-house fund.....	4, 635. 66
	105, 979. 76

134, 582. 72

Disbursements during year ended June 30, 1910:

General maintenance.....	29, 284. 81
Convicts' earnings.....	39, 777. 98
Current expense.....	20, 034. 72
Penitentiary board fund.....	1, 820. 55
Income.....	1, 105. 72
Transportation discharged convicts.....	955. 15
General maintenance deficiency.....	3, 634. 95
Permanent improvement.....	100. 00
Cell-house fund.....	3, 084. 16
	99, 798. 04

34, 784. 68

June 30, 1909, balances on hand, as follows:

Funds available—	
General maintenance.....	8, 115. 00
Convicts' earnings.....	816. 04
Current expense.....	8, 512. 60
Board fund.....	9. 70
Income.....	11. 77
Transportation discharged convicts.....	632. 10
Permanent improvement.....	20. 00
Cell-house fund.....	1, 551. 50
Funds not available ^a —	
General maintenance.....	10, 163. 12
Current expense.....	3, 819. 23
Board fund.....	1, 006. 36
Transportation discharged convicts.....	127. 26
	34, 784. 68

^a "Funds not available" means moneys placed to the credit of these funds in excess of the amount appropriated.

Statement of population of penitentiary for the year ended June 30, 1910.

Number of convicts July 1, 1909.....	297
Received during the year ended June 30, 1910.....	195
Recaptured escapes during year.....	8
	500
Discharged during the year.....	119
Paroled during the year.....	17
Pardoned during the year.....	4
Died during the year.....	2
Transferred during the year.....	7
Escaped during the year (from road gangs).....	17
	166
Number of convicts June 30, 1910.....	334

NEW MEXICO ASYLUM FOR THE INSANE, LAS VEGAS.

On June 30, 1910, the New Mexico Asylum for the Insane at Las Vegas was caring for 262 patients—159 men and 103 women—an increase of 30 patients over the number being cared for on June 30, 1909. In order to care for this increase the board of directors have completed a two-story brick building, with basement, known as "Annex No. 2." The building is substantially constructed and is practically fireproof. It cost completed \$16,548.25 and was paid for with funds saved from the maintenance fund. It has capacity for 70 patients and has relieved the crowded condition of the institution, which is now in satisfactory physical condition. The asylum now has capacity for 325 patients. An extension to the dining room will be built at once, the building to be of fireproof construction, with second story, which will be used as an auditorium and amusement hall for the patients, where entertainments may be held and religious services conducted. Important improvements have been made in the way of fire protection during the year. The institution owns 355 acres of fine land immediately adjoining the buildings, 200 acres of which are in profitable cultivation.

The receipts for the fiscal year amounted to \$69,328.41. The expenditures were \$69,169.86. In the disbursements are included the sum of \$16,548.25 paid for the extension to Annex No. 2, and the sum of \$3,507.27, paid on account of the extension to the dining room now in course of construction.

NEW MEXICO REFORM SCHOOL, SPRINGER.

This institution, established by act of the last legislative assembly, was opened October 1, 1909. The first year of its operation has been successful thus far; there being 29 juvenile prisoners on June 30, 1910. The institution is well equipped, with sufficient buildings for present needs and ample grounds surrounding. A farm is maintained which is worked by the prisoners, thus giving them healthy employment. A thoroughly efficient superintendent, of wide experience in reform school work, has been placed in charge and he is bringing to the institution the most approved methods for juvenile correction.

**NEW MEXICO ASYLUM FOR THE DEAF AND DUMB,
SANTA FE.**

This institution now has 36 pupils who are doing excellent work. The industrial department is receiving special attention, the boys being taught printing, shoemaking, wood turning, carpentering, etc., and the girls general housekeeping, plain and fancy sewing, etc. The most approved methods are employed in teaching, the oral method being used as far as possible. Practically every deaf and dumb child in the Territory has been received into this institution.

NEW MEXICO INSTITUTE FOR THE BLIND, ALAMOGORDO.

This institution, like the institute for the deaf and dumb, is young, but is doing excellent work. Twenty-six pupils are in attendance and every effort is being made to bring to the school every blind child in the Territory. The faculty now consists of the superintendent, matron, both of whom are practical teachers of the blind, and three instructors, including an instructor in music. The very best methods are in use in conducting the institution. The pupils are encouraged in out-door exercises and athletics, and the track team, composed of blind boys, won honors in a recent scholastic athletic contest among institutes for the blind. The institution has an excellent building and its equipment is complete.

MINERS' HOSPITAL, RATON.

This institution, established by legislative act in 1903, is for the care of injured miners. It is maintained chiefly by territorial appropriation, supplemented by revenue from pay patients. The hospital is under the direction of a capable surgeon, the superintendent, and a corps of efficient nurses. During the year an addition has been constructed at a cost of \$12,000, giving an additional 20 rooms. The condition of the institution is satisfactory.

THE NATIONAL GUARD.

The National Guard now consists of one regiment of infantry (11 companies and a band) and a battery of light artillery, with a total strength of 864 enlisted men and 54 officers. This does not include officers on the unassigned list. During the past year two companies of infantry and a light battery have been organized and mustered into the service, and the signal detachment at Roswell has been mustered out. The War Department has treated the guard very liberally by furnishing 348 sets of infantry equipment, complete, valued at \$24,000, and equipment for the light battery valued at approximately \$75,000. Neither of these were charged against our allotment. Our allotment, from which equipment is purchased, has heretofore been so small that it would have been a number of years before the National Guard could have been increased to its present strength, had the War Department not given us this equipment.

During the next year it is hoped that the regiment of infantry may be completed by the organization of one more company. It is also intended to increase the strength of each company by 10 men.

Five companies of infantry and band were in camp of instruction at Las Vegas from July 15 to July 30. The rifle range at Las Vegas, which is also used for camp purposes, is an ideal camp site.

The Territory was represented at the national matches at Camp Perry, Ohio, by a rifle team. The scores made showed a great improvement in marksmanship over the preceding year.

On May 13, in answer to urgent telegrams, stating that the Taos Indians had gone on the warpath and requesting military assistance at once, a detachment of 50 enlisted men and 5 officers from Companies E and F, First Infantry, was directed to proceed to Taos under command of the adjutant-general. The troops left Santa Fe at 12.30 a. m. on May 14. Fortunately the trouble was not as serious as had been reported and the troops, after going no farther than Cieneguilla, returned to Santa Fe on the morning of May 15. The promptness with which this movement was effected and the spirit shown by the officers and men on that occasion speaks well for the National Guard. The experience gained by the men on this trip was alone well worth the money expended.

The New Mexico Military Institute at Roswell was inspected by the adjutant-general on May 24, as required by law, and found to be up to its usual high standard. This institution has again been placed in the distinguished class by the War Department. This alone is a sufficient testimonial to the excellent work which is being done.

During the next winter a regular school system for the theoretical instruction of officers and noncommissioned officers of the guard will be established.

MINING.

Important development in metal mining has occurred during the past year. In the mining districts of Grant County corporations backed by ample capital have expended large sums in development of the great copper deposits of this region and the ore already blocked out and the equipment now being installed for mining it assures that this will soon take its place as one of the great copper-producing districts of the country. There has been, also, important development in the lead and zinc mines of Socorro County, while some revival is indicated in the older mining districts of Lincoln County.

COAL MINING AND RESOURCES.

The coal-mining industry in New Mexico has been very prosperous during the past fiscal year, the production having been greater than in any preceding year, with greater increase than heretofore shown. The gross production was 3,293,486.41 tons; amount used in operating the mines 38,553 tons; approximate amount of unwashed slack and coal sent to coke ovens, 802,676 tons; net tonnage of coal shipped to market, 2,433,733.98 tons; estimated value of net product at the mines, \$3,503,904.91.

These figures show an increase of gross production of 512,396.59 tons; increase of gross production over preceding fiscal year 18.42 per cent. The increase of net product of coal shipped to market was 486,668.55 tons, or 24.99 per cent over the preceding fiscal year. Increase in value in net tonnage of coal shipped to market \$744,478.66. In addition to the coal shipped 397,102.10 tons of coke were shipped,

the value of which was \$1,189,965.62, or a total value of coke and coal shipped amounting to \$4,693,870.53, an increase in value over the preceding fiscal year of \$775,758.59, or an increase in value of coal-mine products of 19.79 per cent. Two thousand four hundred and sixty-four men and 39 boys were employed under ground, and 340 men and 18 boys outside at the mines; total number of men and boys employed immediately at the mines 2,861.

While a greater tonnage of coal was mined than in any preceding year, and also a much greater tonnage per man employed, the percentage of fatalities fell from 0.556 in the preceding fiscal year to 0.489 in the year last past.

The most pleasant relations were maintained between the mine operators and employees; and there was no indication of strikes or labor troubles during the year.

FISH AND GAME.

The game and hunting license law passed by the legislature of 1909 has been in very effective operation. The license fees, while moderate, have been rigidly required; an effective system of deputy wardens has been established throughout the Territory and all protected game is carefully watched. Under the system organized by the territorial game warden there are now 149 license collectors, 160 general deputies charged with the enforcement of the law, and a chief deputy, who is in charge of the central office at Santa Fe. Forest officers and Indian school-teachers are among the most capable of the deputy wardens, there being 40 of the former and 16 of the latter now serving. The revenue from licenses not only maintains the system, but during the past year has left a substantial balance as shown by the following statement:

From sale of licenses and permits.....	\$9,596.95
From fines for violations of the laws.....	180.00
Total.....	9,776.95
From which there has been expended:	
Salary of chief deputy.....	1,125.00
Contingent expenses of office, and of warden on field duty.....	1,448.24
Expenses of deputies on field duty.....	1,315.38
Total.....	3,888.62
Leaving a balance in the game-protection fund July 1, 1910, of.....	5,888.33

The people throughout the Territory, as they become better acquainted with the law and its intent are carefully observing it. There is an increasing rush each summer for our trout streams, both by residents and nonresidents. The result of several seasons with very heavy catch has become apparent in several more accessible streams, therefore propagation has become necessary. A hatchery is badly needed.

Hon. G. M. Bowers, Commissioner of the Bureau of Fisheries, Washington, D. C., is rendering the people of New Mexico valuable assistance by furnishing fish fry for stocking, not only the public streams, but also private lakes and reservoirs, but owing to the increasing demand throughout the entire country it is impossible to

secure anything like a sufficient number to keep our streams properly stocked.

New Mexico is an ideal game country. Its numerous mountain ranges heavily timbered and watered by many mountain streams cover a very considerable portion of the total area. The large forest reserves are constantly and carefully guarded by forest officers, who, while protecting the game as well as the forests, are engaged in killing off predatory animals, thereby rendering valuable assistance to the warden.

The mountain districts are well stocked with deer, grouse, and wild turkey. Prairie chickens and bob white quails are rigidly protected until 1915 and are rapidly increasing in number. There are a few ptarmigan and wild pigeons in the Taos Mountain range. A band of mountain sheep in the Guadalupe Mountains near the Texas and New Mexico line, which under the present protection are increasing, are frequently seen.

HEALTH.

Health conditions in New Mexico during the past year have been good. There have been no serious epidemics and all of our cities and incorporated towns are now adopting very rigid sanitary and quarantine regulations so that danger of disease is being constantly minimized. The territorial board of health is a thoroughly efficient body, and its work is doing much to promote the public welfare. New Mexico's magnificent climate is attracting more and more people each year, who are drawn here by reason of the relief to be had from pulmonary tuberculosis and all diseases of the throat and lungs. The United States Army Sanitarium at Fort Bayard, Grant County, and the Marine-Hospital Service Sanitarium at Fort Stanton have done much to demonstrate that tuberculosis may be cured by careful living, under the beneficent influence of this climate. New sanatoria for treatment and care of tubercular patients are being established throughout the Territory and all of the larger towns are now well prepared to care for the increasing army of health seekers.

During the past year 110 physicians were licensed to practice in New Mexico.

MUSEUM OF NEW MEXICO AND SCHOOL OF AMERICAN ARCHÆOLOGY.

The territorial legislature of 1909 established the Museum of New Mexico and located it in the city of Santa Fe. This institution is under the control and management of a board of regents consisting of six members, appointed by the governor. The old building known as the "governor's palace" at Santa Fe is the home of this museum, and the regents have given the use of the building to the School of American Archæology, whose headquarters have been established at Santa Fe. The legislature appropriated \$3,000 for the purpose of installing a heating plant in the governor's palace and renovating it in general, and an annual appropriation of \$5,000 was made, to be used for the care and improvement of the building, grounds, and museum, for equipment, for excavation and research work and the preservation of archæological sites in New Mexico.

The Archaeological Institute of America is a national institution existing by virtue of act of Congress, and this institute has thus far established four schools of archaeology, located, respectively, at Rome, Athens, Jerusalem, and Santa Fe. The school located at Santa Fe, the School of American Archaeology, is working hand in hand with our territorial museum; the two thus rendering each other valuable aid, resulting in their mutual advancement.

Santa Fe was selected as the location of this school because it is in the midst of the richest archaeological fields of the United States. Already this institution has attracted world-wide interest, and the summer school conducted at the Rito de Los Frijoles, about 30 miles from Santa Fe, was attended by scientists and students not only from various universities throughout the United States but from Europe as well.

A great deal of work in the way of excavation at the cliff dwellings has been done by the staff of the school and museum, and many skeletons, and specimens of the utensils of the prehistoric people, valuable to science and historical research, have been obtained.

MOUNTED POLICE.

The New Mexico mounted police consists of a captain, sergeant, 4 regular privates, and 2 additional privates who serve with pay, all appointed by the governor.

During the interval between July 1, 1909, and the present time this force has made 232 arrests for different offenses and has recovered and restored to the owners a large number of cattle, horses, and other stock.

This body of men, together with the local peace officers, has been specially active in the pursuit and capture of stock rustlers and desperate characters, and the present very satisfactory conditions as to law and order are largely due to the efforts of this force. The laws regarding gambling and the closing of saloons and business houses on Sundays are being rigidly enforced, and altogether life and property are safe in the Territory.

RECOMMENDATIONS.

SALE OF SCHOOL LANDS.

Under the act of Congress of 1898 granting lands to this Territory for the support of the public schools and other educational institutions, the sale of such of these lands as may be disposed of is restricted to 160 acres to an individual. The small acreage which may be sold makes it difficult to dispose of these lands to the best advantage, and while no effort is now being made to sell our school lands, which are held at an average price of \$10 an acre, the time will come when it will be desirable to sell them. Congress has recently deemed it wise to increase the acreage of homestead land which may be filed on in certain districts from 160 to 320 acres to an individual. Much of our land is of the same character as that now being designated as 320-acre homestead land, and it seems reasonable that we should have the right to sell it in acreage equal to or greater than that of the enlarged homestead. Believing that this policy will enable us to dispose of

these lands to much better advantage, when it becomes desirable to place them on the market, I strongly recommend that the act making the grant be so amended as to permit us to sell in tracts not to exceed 640 acres to an individual.

SCENIC HIGHWAY THROUGH PECOS NATIONAL FOREST.

The New Mexico Scenic Highway, or "El Camino Real," as it is known, is a state highway projected from El Paso, Tex., on the south, to Raton, N. Mex., and the Colorado state line on the north, where it connects with a similar highway across the State of Colorado, extending to Denver and Cheyenne, Wyo., passing through some of the most beautiful scenery in the Rocky Mountain region. The road will be of great commercial importance. This highway has now been completed from the Colorado line through Raton to a point near Las Vegas on the north, and from Las Vegas some distance west. The territorial good-roads commission is now pushing construction from Santa Fe on the west, while the highway has been almost completed from Santa Fe to Albuquerque. The highway, therefore, is practically complete from Albuquerque to the Colorado line, save for a short stretch through the Pecos National Forest. The expense of constructing this short section of the highway through the Pecos Forest will be comparatively small. It will be of importance to the successful administration of the forest and the preventing of forest fires, and I therefore recommend that the Forest Service proceed with this construction as soon as practicable.

I am, sir, respectfully yours,

WILLIAM J. MILLS,
Governor of New Mexico.

THE SECRETARY OF THE INTERIOR.

**REPORT OF THE MINE INSPECTOR FOR THE
TERRITORY OF NEW MEXICO.**

REPORT OF THE MINE INSPECTOR FOR THE TERRITORY OF NEW MEXICO.

SILVER CITY, N. MEX., *September 5, 1910.*

SIR: In compliance with section 3 of an act of Congress approved March 3, 1891, entitled "An act for the protection of the lives of miners in the Territories," I beg leave to submit herewith the seventeenth annual report of this office, covering the fiscal year ended June 30, 1910.

INTRODUCTION.

PRODUCTION AND PROSPECTS.

The coal-mining industry in New Mexico during the past fiscal year has continued the onward and prosperous stride of the seven preceding years. The gross production of the Territory was 3,293,486.41 tons; amount used in operating mines, 38,553 tons; approximate amount of unwashed slack and coal sent to coke ovens, 802,676 tons; net tonnage of coal shipped to market, 2,483,733.98 tons; estimated value of net product at the mines, \$3,503,904.91. These figures show an increase of gross production of 512,396.59 tons, or 18.42 per cent over the preceding fiscal year. The increase of net product of coal shipped to market was 486,668.55 tons, or 24.99 per cent. The increase in value in net tonnage of coal shipped to market was \$744,478.66. In addition to the coal shipped, 397,102.10 tons of coke were shipped, the value of which was \$1,189,965.62, making the total value of coal and coke shipped \$4,693,870.53, an increase in value over the preceding fiscal year of \$775,768.59, or 19.79 per cent.

The production of coal and coke kept pace with the demand, although all of the coke ovens in the Territory were not operated full time. (See table of coke production, p. 71.) The decreased demand for coke was due to the restricted operations of the copper mines and smelters of the Southwest and of Mexico.

The demand for coal from the Gallup field in New Mexico was restricted fully 1,500,000 tons by the competition of fuel oil from California, which has taken the place of Gallup coal on more than 1,000 miles of railroad, and also in manufacturing industries and for domestic use on the Pacific coast.

The fuel oils of the Indian Territory and Texas similarly restricted the demand for coal from the northern New Mexico field, the oil being used for fuel on the railroads of Texas, and from El Paso, Tex., to Los Angeles, Cal.; oil was also used for fuel at some of the mining and smelting plants of Arizona and Mexico.

During the last four or five months of the fiscal year the demand for New Mexico coal was further curtailed by the attempt of the Mexican Government to operate the national railroads with coal from Mexican mines. This attempt was first made during the preceding fiscal year, but the Mexican Central Railroad was not placed under instructions until the earlier months of 1910. When the order was given to use only Mexican coal for fuel on the Mexican Central Railroad the road had quite a large stock of coal in reserve. This reserve has been drawn upon, in addition to the production from the Mexican coal mines, until now the reserves are exhausted and the inability of the Mexican mines to furnish sufficient coal for the railroads of the Republic has been determined beyond doubt. Already agents of the Mexican Central Railroad are casting about to find mine operators who will supply the road with coal in case the threatened shortage occurs. The prospect is bright for a larger demand for New Mexico coal from Mexico in the near future.

Strikes at the coal mines of the Middle West and Oklahoma may have tended to keep up the demand for New Mexico coal throughout the summer months, but the rapid development of New Mexico and Arizona is also furnishing a better market for the fuel and a market that will be permanent.

The increased production and constant operation of the mines are better indications of the prosperity of the coal-mining industry than anything that might be written upon the subject.

LABOR CONDITIONS.

There has been a slight dearth of miners at most of the large coal mines of the Territory. It was expected that the miners who were out of employment on account of strikes at coal mines farther east would seek employment in New Mexico, but few of these came west; however, the mines of the Territory did not suffer severely from lack of labor.

From the statistical tables herein furnished it is easy to calculate the average wages earned by miners in New Mexico. Taking the six largest mines, the average wage earned, as shown, ranges from \$3.58 to \$4.03. From this is to be deducted the cost of powder and oil used by the miner, which would leave an average net daily earning of about \$3.10. To this must be added extra pay for putting in cross timbers and sets, and for brushing, yardage, etc., which would probably bring the average wage to \$3.50 or better. But in calculating the average wage it must be remembered that there are many novices at work in the mines who earn small wages while learning. A first-class, able-bodied miner usually earns from \$4.50 to \$6 per day, and the writer has seen many pay rolls, at different mines, whereon several of the miners had earned from \$160 to \$200 for 22 to 25 days work. If the major part of the danger factor is removed from mining in New Mexico, as may be done by enforcing proper discipline, coal mining will become a favorite pursuit.

The mine operators and miners were in close accord during the year, and at no time nor at any place were any signs of discord shown. The operators are taking greater interest than ever before in the safety and comfort of the employees, and in line with other efforts for the safety of the men and the preservation of property

they are maintaining better discipline. As a result fatal and nonfatal accidents have greatly decreased during the past two years; the rate of fatal accidents for the fiscal year ended June 30, 1908, was 9.26 per thousand persons employed; for the following year, 1909, it was 5.56 per thousand employed; and during the past year, 4.89 per thousand employed. This rate is much greater than it should be, and is primarily due to lack of laws by which discipline can be enforced.

MINES THAT SUSPENDED AND MINES THAT RESUMED WORK.

The following mines suspended operations during the past fiscal year for the reasons stated:

Anthracite mine, No. 3 opening, Madrid, N. Mex.—Developed area worked out.

Lower Peacock mine, Madrid, N. Mex.—Coal too low; inside haulage too long.

Sugarite mine, Raton, N. Mex.—Lease expired; reverted to owners; will resume.

The following mines resumed operations: Gray mine, Capitan, N. Mex.; Brilliant mine, Brilliant, N. Mex.

STATISTICAL TABLES.

Statistics of the coal-mining industry in the Territory of New Mexico for the fiscal year ended June 30, 1910.

[Tons are of 2,000 pounds.]

Name of mine.	Persons employed underground.				Persons employed outside.			Number of days mine was operated.	Total output.	Amount used in operating mine.	Net production of coal shipped to market.	Approximate price per ton.	Estimated value at the mine of coal shipped to market.	Increase of net production over preceding fiscal year.	Decrease of net production from preceding fiscal year.	Percentage of increase or decrease of gross output.	Quantity and class of explosive used.			Character of coal mined and shipped.
	Miners.	Company men.	Boys.	Total.	Men.	Boys.	Total.										Black powder.	Dynamite.	Permissible explosives and brands.	
BERNALILLO COUNTY:																				
Tocco.....	3			3	1		1	120	Tons 160	Tons 40	Tons 120	\$10.00	\$1,200.00	Tons	Tons 180		Lbs (c)	Lbs \$ 50 (c)	Lbs (c)	Bituminous; good quality of blacksmith coal.
COLFAX COUNTY:																				
Dawson, Nos. 1, 2, 3, 4, and 5.	588	176	10	783	103	3	306	2672	1,185,963	2,898	660,717	1.26	825,905.75	147,268			675	915,155		Bituminous, coking lump and steam coal shipped.
Van Houten, Nos. 1, 2, 4, 5, and 6.	324	99	6	428	34	3	37	252	4659,324	3,775	552,974	1.17	646,979.68	132,981			264	578	/ 28,828	Do.
Koehler Nos. 1, 2, and 4.	275	80	6	361	33	3	36	246	4540,310	7,502	9341,428	1.17	399,470.76	53,898			156	625	46,981	Do.
Yanket.....	40	9		49	12		12	160	17,803	55	17,748	1.64	27,400.00		13,981.23		11	206		Bituminous, coking all sizes shipped.
Sugarite.....	16		1	17	1		1	180	10,100		10,100	1.76	17,675.00		3,338		(c)	(c)	(c)	Do.
Total.....	1,243	364	23	1,630	193	9	192	2,413,500	13,720	1,682,967	2,008	3.00	6,198.97			+13.43	423,061	156,155	66,756	Bituminous, coking mine run.
LINCOLN COUNTY:																				
Old Abe.....	4	1		5	1		1	300	2,066		2,066	3.00	760.00	250			(c)	(c)	(c)	Do.
Gray.....	2	1		3	1		1	60	1,250		290	3.00	846.97							Bituminous, coking mine run.
Total.....	6	2		8	2		2	360	3,316		2,316		6,946.97			+4.88				Do.

McKENLEY COUNTY:	168	40	2	210	25	5	30	261.7	272,845.71	304	261,541	1.75	457,608.75	22,904		110,725	Subbituminous, non-cooking; all sizes.	
Weaver.....																	Do.	
Heston.....	150	31	4	185	30	3	33	262.3	266,925	2,513	264,412	1.75	462,721.00	63,507		142,620	Do.	
Navajo.....	55	21		109	26		25	273.3	120,278	1,797	120,481	1.75	238,841.75	54,296		107,875	Do.	
Navaho mnt.....	35	10		45	7		7	273.3	49,000	1,000	48,000	1.75	84,000.00	8,700		67,500	Do.	
Gallup-Southwest-ern.....	12	3		15	7		7	220	11,200	200	11,000	1.82	20,046.00	5,400		7,500	Subbituminous, non-cooking; lump and screen coal.	
Enterprise.....	7	3		10	1		1	154.8	4,167		4,167	1.75	7,291.81		2,080.25	3,750	Do.	
Zuni Reservation...	2			2				100	300		300	1.50	756.00			800	Subbituminous, non-cooking; minus run.	
Navajo School.....	4			4			60	800			800	2.00	1,600.00	100		250	Subbituminous, non-cooking; screened minus run.	
St. Michaels.....	2			2			40	150			150	2.00	300.00			150	Subbituminous, non-cooking; minus run.	
Total.....	465	111	6	582	96	8	104		737,925.16	874	721,051		1,262,747.31		+ 17,644.170	50		
RIO ARriba COUNTY:																		
Burns-Riggs Lumber Co. & Sons.....	7	2		9	2		2	240	5,500		5,500	2.00	11,000.00	1,373		(9)	Bituminous, cooking; minus run.	
Kuter.....	10	3		13	2		2	120	4,750	250	4,500	1.50	6,750.00	2,200		5,000	Do.	
Angus.....	13	2		15	5		5	120	3,500		3,500	1.50	5,400.00	3,600		120	Do.	
Total.....	30	7		37	9		9		13,850	250	13,600		23,150.00		+ 41.6	5,120		
SANTA FE COUNTY:																		
Cerrillos bituminous.....	30	7		37	8		8	250	24,130	550	23,580	1.85	35,434.80	3,008		30,500	Bituminous, cooking; all sizes shipped.	
Cerrillos anthracite.....	30	7		37	3		3	273	84,575		84,575	3.30	114,097.50	22,275		33,000	Anthracite; all sizes shipped.	
Lewisohn.....	5	2		7	1		2	220	3,630		3,630	1.50	5,448.05		862.8	(9)	Bituminous, cooking; minus run.	
Total.....	65	16		81	12		13		62,353	550	57,422		154,990.35	25,283	862.8	+ 80.6	63,500	

Coal pick mined.

to 40 per cent.

^d The gross output of the Van Houten mines as given above shows an excess of 1,255 tons unaccounted for as either shipped to market, used at mines, or sent to coke ovens. This discrepancy is probably due to part of gross product being in transit and not recorded as received at points to which it was distributed. A similar discrepancy of 12,852 tons occurs in the returns above from the Koehler mine, probably due to same cause. Similar discrepancies will be found in other places, but the returns from the principal mines are copied from the operators' books.

of 101,320 tons of unwashed slack and coal were shipped to the coke ovens at Gardiner, N. Mex. This was deducted from the total output, showing net result here given.

f Monobel.

of 178,498 tons of unwashed slack and coal were

A Estimated; statistical blanks not returned.

† Not reported.

This mine furnishes boiler capacity for deep-well pump and electric plant for lights for Weaver, Heaton, and Navajo mines; also electric power for fans at Weaver and Heaton mines; hence greater comparative consumption of fuel.

mines, since greater comparative consumption of fuel.
 4,381 tons were used in operating the anthracite mine
 A. T. & S. F. R. B. at Waldo, N. Mex., 3 miles distant.
 This amount was also deducted from the total output.

Statistics of the coal-mining industry in the Territory of New Mexico for the fiscal year ended June 30, 1910—Continued.

[Tons are of 2,000 pounds.]

Name of mine.	Persons employed underground.			Persons employed outside.			Number of days mine was operated.	Total output.		Amount used in operating mine.	Net production of coal shipped to market.	Approximate price per ton.	Estimated value at the mine of coal shipped to market.	Increase of net production over preceding fiscal year.	Decrease of net production from preceding fiscal year.	Percentage of increase or decrease of gross output.	Quantity and class of explosives used.			Character of coal mined and shipped.
	Miners.	Company men.	Boys.	Total.	Men.	Boys.	Total.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Black powder.	Dynamite.	Permissible explosives and miscellaneous brands.	
SAN JUAN COUNTY:																				
Enterprise.....	2			2	2			60	a 400		400	\$1.50	\$600.00							
San Juan.....	3			3	3			100	a 500		500	1.50	750.00							
Stevens.....	3			3	3			142	833		833	1.50	1,249.50		183		(b)	(b)	(b)	Subbituminous, semi-coking; mine run.
Thomas.....	1			1	1			150	a 400		400	1.50	600.00				(b)	(b)	(b)	Do.
Kirtland.....	4		1	5	5			196	1,065		1,065	1.50	1,597.50		225		(b)	(b)	(b)	Do.
Total.....	13	1		14	14			3,198			3,198		4,798.00							Do.
SOCORRO COUNTY:																				
Hilton.....	30	17		47	47	9	280	21,429	387		21,082	2.50	52,655.22	440						Bituminous, coking; screened mine run.
Government.....	20	16		36	36	16	280	15,021	a 249		8,773	2.50	21,932.70		8,344.07				\$ 200	Do.
Bernal.....	16	12		28	28	8	280	12,137	209		11,928	2.50	29,820.27		4,824.06				\$ 5,180	Do.
Emerson.....	20	8		28	28	4	229	11,698	300		11,298	2.50	28,245.00		5,454.17				\$ 800	Do.
Total.....	86	53		139	139	37	37	60,185	7,124		83,061		132,603.19	440	18,622.30	-8.4			5,660	4,200

a Estimated; statistical blanks not returned.

b Not reported.

c The Government mine supplies compressed air to operate underground hoists and pumps at the Bernal and Hilton mines, hence greater comparative consumption of fuel.

d 35 per cent.

e Carbonite, No. 2.

f Carbonite, No. 3.

SUMMARY.

(Tons are of 2,000 pounds.)

County.	Persons employed underground.			Persons employed outside.			Total number of persons employed at the mines.	Gross production.	Amount used in operating the mines.	Net production of coal shipped to market.	Estimated value at the mine of net production shipped to market.	County percentage of gross output of territory.	Fatal accidents in county during fiscal year.	Causes of fatal accidents.
	Miners.	Company men.	Total.	Men.	Boys.	Total.								
Bernalillo.....	3	364	3	1	9	1	4	Tons. 160	Tons. 40	Tons. 120	\$1,200.00	73.2909	8	Falls of rock, 3; falls of coal, 3; struck by mine cars, 2.
Colfax.....	1,243	.....	1,639	183	.....	192	1,831	2,413,500	13,720	1,582,957	1,917,421.09	.....	.....	.....
Lincoln.....	6	2	8	2	.....	2	10	2,316	.....	2,316	6,945.97	0703	.....	Falls of rock, 3; asphyxiated by smoke from mine fire, 2.
McKinley.....	465	111	582	96	8	104	686	737,925	16,874	721,051	1,262,747.31	22.4044	5	.....
Rio Arriba.....	30	7	37	9	.....	9	46	13,850	250	13,600	23,150.00	4205	.....	.....
Santa Fe.....	65	16	81	12	1	13	74	62,853	530	57,423	154,990.85	1.8634	.....	.....
San Juan.....	13	.....	14	.....	.....	.....	14	3,188	.....	3,188	4,798.00	1.8770	.....	.....
Socorro.....	86	53	139	37	.....	37	176	60,185	7,124	53,061	132,668.19	1.8273	1	Fall of rock, 1.
Total for territory, 1910.....	1,911	553	2,503	340	18	358	2,861	3,293,457	38,558	2,433,735	3,503,904.91	99.9938	14	.....
Total for territory, 1909.....	2,050	570	2,647	555	29	584	3,231	2,781,089	72,465	1,947,065	2,759,428.25	.....	18	.....
Increase or decrease.....	-139	-17	-144	-215	-11	-226	-370	+512,396	-83,907	+486,670	+744,478.66	.....	-4	.....

a Coal sent to coke ovens accounts for apparent discrepancy. See footnote, p. 9.

Percentage of increase of net production over preceding fiscal year, 18.42.

Percentage of fatalities to number of persons employed during fiscal year ended June 30, 1909, 0.557.

Percentage of fatalities to number of persons employed during fiscal year ended June 30, 1910, 0.498.

Number of tons of coal mined for each life lost during fiscal year ended June 30, 1909, 154,504.99.

Number of tons of coal mined for each life lost during fiscal year ended June 30, 1910, 236,249.02.

Prices paid for labor, mining coal, etc., during the fiscal year ended June 30, 1910.

	1	2	3	4	5	6	7	8	9	10	11	12	13
Thickness of coal bed.....feet.	5-8									4-5 1/2	4-6	5-6	6
Mining coal, per ton of 2,000 pounds, mine run.....	\$0.50	\$0.50	\$0.50	\$0.58	\$0.58	\$0.58	\$1.00	\$0.90	\$1.00	\$0.85	\$0.75	\$0.75	\$0.75
Driving main entry.....per yard.	1.75	1.75	1.75	2.00	2.00	2.00	2.40	2.40	2.40	3.00-5.00	3.00	3.00	3.00
Driving back entry.....do.	1.75	1.75	1.75	1.50	1.50	2.50	2.00	2.50	2.50	1.00	.50	0.50-1.00	0.50-2.00
Barrow work.....do.	1.00-1.75	1.00-1.75	1.00-1.75	1.50	1.50	1.50				1.00	.50	0.50-1.00	
Driving crosscut.....do.													
Driving main slope into natural coal, per yard.		1.75	1.75	2.00	2.50	2.50	3.00	3.00	3.00				
Three rooms.....each.	3.00	3.00	3.00	4.00	4.00	4.00	3.10	3.10	3.10				
Setting rough 8-foot timbers.....each.	.50			.50	.50	.50							
Driving main slope when in faults or solid rock.....per yard.				2.00				8.00	8.00				
Wages paid:													
Fire bosses.....per day.	3.25	3.25	3.25					3.25	3.25				
Pit bosses.....per month.	125.00	120.00	120.00					125.00	100.00	115.00	100.00	100.00	
Shot firers.....per day.	3.00	3.25	3.25					3.00	3.00	3.30	3.30	3.30	
Tracklayers.....do.	3.00	2.95	2.95	3.10	3.00	3.00		3.00	3.00	3.00	3.00	3.00	3.00
Company men outside.....do.	4.80	2.95	2.95					3.00	3.00	3.00	3.00	3.00	3.00
Company men underground.....do.	2.85	2.95	2.95	3.10	3.00	3.00		3.00	3.00	3.00	3.00	3.00	3.00
Company timbermen.....do.	3.05	2.95	2.95					3.00	3.00	3.00	3.00	3.00	3.00
Assistants to company men.....do.	2.50	2.95	2.95	3.10	3.00	3.00		2.75	2.75	2.00-2.50	2.75-3.00	2.75	
Single mule drivers.....do.	2.95	2.95	2.95	3.10	3.00	3.00		3.00	2.75	2.00-2.50	2.75-3.00	2.75	
Team drivers.....do.	2.95	2.95	2.95	3.10	3.00				2.75	2.00-2.50	2.75-3.00	2.75	
Car couplers.....do.	2.15	1.95	1.95	2.25					2.75	2.00-2.50	2.75-3.00	2.75	
Rope riders.....do.				3.10					3.00	2.00-2.50	2.50-3.00	3.00-3.00	3.00
Boys attending doors.....do.	1.45	1.20	1.20	3.10					3.00	2.00-2.50	2.50-3.00	3.00-3.00	3.00
Stable bosses.....per day.	80.00	80.00		65.00	75.00			75.00	75.00			55.80	
Electricians.....per day.	3.25	\$120.00	\$120.00										
Linenmen.....do.	3.00												
Motor men.....do.	2.95	2.95	2.95										
Engineers.....per month.	82.00	80.00	80.00	90.00	90.00	90.00		62.75	62.75	90.00	75.00	90.00	93.30
Boiler men.....per day.	2.50	\$75.00	\$75.00	2.50	2.00	2.00		1.75	1.75				
Weighmen.....do.	2.65	\$75.00	\$75.00	\$90.00	3.00	2.50		3.00	2.75	\$75.00	2.50	\$75.00	2.50
Triples men.....do.	2.25	2.50	2.50	2.50	2.50	2.00		3.00	2.00	1.50	1.50		
Blacksmiths.....do.	3.25	3.75	3.75	3.00	3.25	3.15		3.00	3.25			3.25	3.50
Blacksmiths' helpers.....do.	2.15	2.75	2.50	3.00	2.50			2.25	2.25			1.80	
Carpenters.....do.	4.00	3.50	3.50	3.00	2.50	3.00		3.25	3.25			3.00-4.00	
Machine men on coal-cutting machines.....per day.										2.50	3.00-3.50	3.50	
Helpers on coal-cutting machines, per day.....	\$1.25									2.00-3.00	3.00	3.00-4.50	

Prices of supplies:											
Powder.....	per keg.										
Dynamite.....	per pound.										
Lamp cotton.....	per ball.										
Squibs.....	per box.										
Lamp oil.....	per gallon.										
Deductions:											
Hospital.....	per month.	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Doctor.....	do.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Blacksmithing.....	do.	1.00	.50	.50	.50	.50	.50	.50	.50	.50	.50
House rent—											
Two rooms.....	do.	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Three rooms.....	do.	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Four rooms.....	do.	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Average per room.....	do.	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Electric lights.....		¢ 25-.50	.25-.50	.25-.50	.25-.50	.25-.50	.25-.50	.25-.50	.25-.50	.25-.50	.25-.50
¢ Per set.											
¢ Per day.											
¢ Underground.											
¢ Per month.											
¢ Per ton of 2,000 pounds.											
¢ Per hour.											
¢ \$0.25 for 16-candlepower light and \$0.50 for 32-candlepower.											

1. Stag Cañon Fuel Company, Dawson.
2. St. Louis, Rocky Mountain and Pacific Company, Van Houten mines, Van Houten, Colfax County.
3. St. Louis, Rocky Mountain and Pacific Company, Koehler mines, Koehler, Colfax County.
4. Victor-American Fuel Company, Weaver, Heaton, and Navajo mines, Gibson, McKinley County.
5. Rocky Cliff Company, Canavan mine.
6. Gallup-Southwestern Coal Company, Union mine, Gallup, McKinley County.
7. Burns-Biggs Lumber Company, Burns-Biggs mine, Lumberton, Rio Arriba County.
8. Albuquerque and Cerrillos Coal Company, Cerrillos anthracite mine, Madrid, Santa Fe County.
9. Albuquerque and Cerrillos Coal Company, Cerrillos bituminous mine, Madrid, Santa Fe County.
10. Carthage Fuel Company, Hilton mine, Carthage, Socorro County.
11. Carthage Fuel Company, Bernal mine, Carthage, Socorro County.
12. Carthage Fuel Company, Government mine, Carthage, Socorro County.
13. Emerson and Allaire, on Emerson mine, Carthage, Socorro County.

DESCRIPTION OF MINES.

The following table shows the systems of working and ventilation, the kind of power used, and the available horsepower of the machinery:

Name and location of mine.	Method of working.	Power used.	Available horse-power.	Ventilation.
BERNALILLO COUNTY:				
Tocco.....	Slope, single entry.....	Horse whim.....	.....	Furnace.
COLFAX COUNTY:				
Dawson.....	Triple main drift, double cross entry, room and pillar.	Electricity, steam.....	2,310	Exhaust fan.
Van Houten.....	do.....	do.....	700	Do.
Brilliant.....	do.....	do.....	250	Fan.
Koehler.....	do.....	do.....	800	Do.
Yankee.....	do.....	Gravity tram way.....	150	Furnace.
Sugarite.....	Single main drift entry, cross entry, room and pillar.	Horses and burros.....	.....	Do.
LINCOLN COUNTY:				
Willow Springs.....	Slope, single entry, room and pillar.	Horse whim.....	.....	Natural.
Gray.....	do.....	do.....	.....	Do.
Old Abe.....	do.....	do.....	.....	Do.
McKINLEY COUNTY:				
Weaver.....	Slope, double entry, rib and room.	Steam and electricity....	600	Pressure fan.
Heaton.....	do.....	do.....	275	Do.
Clark.....	Drift, double entry, rib and room.	Electricity.....	100	Do.
Navajo.....	Slope, double entry, rib and room.	Steam.....	450	Do.
Casna.....	Slope, single entry, room and pillar.	do.....	50	Furnace.
Bartlett.....	Shaft, double entry, room and pillar.	.....	85	Pressure fan.
Gallup-Southwestern	Slope, single entry, room and pillar.	Steam.....	110	Furnace.
Enterprise.....	do.....	Mules.....	.....	Do.
RIO ARriba COUNTY:				
Monero.....	do.....	Steam.....	75	Natural.
McBroom.....	do.....	Horses.....	.....	Do.
Kutz.....	do.....	Steam.....	30	Furnace.
Burns-Biggs.....	do.....	Horse whim.....	.....	Do.
Angel.....	Drift, single cross entry, room and pillar.	Burros.....	.....	Natural.
SAN JUAN COUNTY:				
Thomas.....	Single main drift, single entry, room and pillar.	Horses.....	.....	Do.
Enterprise.....	Single slope, single entry, room and pillar.	do.....	.....	Do.
Stevens.....	Single main drift entry, room and pillar.	do.....	.....	Do.
Kirtland.....	Slope, single entry.....	do.....	.....	Do.
San Juan.....	Drift entry.....	do.....	.....	Do.
SANDOVAL COUNTY:				
Hagan.....	Slope and 2 back slopes, double cross entries, room and pillar.	Steam.....	60	Do.
SANTA FE COUNTY:				
Cerrillos bituminous..	Main slope, cross entries, room and pillar.	do.....	70	Exhaust fan.
Cerrillos anthracite..	do.....	do.....	60	Do.
Lewisohn.....	Slope, single entry, room and pillar.	Horse whim.....	.....	Natural.
SOCOERO COUNTY:				
Hilton.....	Slope, double entry, room and pillar.	Steam.....	40	Exhaust fan.
Government.....	do.....	do.....	585	Pressure fan.
Bernal.....	do.....	do.....	35	Furnace.
Emerson.....	do.....	do.....	140	Natural.
McIntyre.....	do.....	do.....	50	Do.

Coal mining by machines does not appear to gain in favor with the miners and mine operators of New Mexico. More machines were in use ten years ago than have been in use recently. One reason for this

condition is the difficulty of getting skilled labor. Many of the most experienced operators claim there is little, if any, profit in machine mining over hand mining. Where coal is very hard or tough, or where coal is so low that undermining by hand work makes too large a percentage of slack, undercutting by machine is preferable. In other States the use of coal-mining machines is growing, and it would appear at first sight that mining by machine has advantages over manual labor, but after years of experiment the number of coal-mining machines in New Mexico has certainly not increased.

During the past fiscal year 4 Goodman and 2 Sullivan coal-cutting machines, operated by electricity, were in use intermittently at the mines of the Stag Cañon Fuel Company, at Dawson, N. Mex. The quantity of coal mined by machines was 20,555.55 tons.

At the Carthage Fuel Company's mines at Carthage, N. Mex., Sullivan puncher machines were used intermittently; the quantity of coal mined by them was 1,233.07 tons. The total reported tonnage of coal mined in the Territory by machines was 21,788.62.

Pneumo-electric puncher machines were used by the St. Louis, Rocky Mountain and Pacific Company during the latter part of the fiscal year in some of the entries of the mines at Van Houten, N. Mex., but the tonnage mined was not recorded separately.

DIRECTORY OF MINES.

The following table gives the names of the owners and managers of the mines described in this report:

Directory of coal mines, 1910.

Mine.	Owner.	Manager or superintendent.	Post-office.
BERNALILLO COUNTY:			
Tocco.....	John Tocco.....	John Tocco.....	Albuquerque, N. Mex.
COLFAX COUNTY:			
Van Houten, Nos. 1, 2, 3, 4, and 5.	St. Louis, Rocky Mountain and Pacific Co.	J. Van Houten, president and general manager.	Raton, N. Mex.
Koehler, Nos. 1, 2, and 3.		Allen French, general superintendent.	Do.
Brilliant.....		James Stewart, superintendent.	Van Houten, N. Mex.
		John Evans, superintendent.	Koehler, N. Mex.
		Jo Garner, superintendent.	Brilliant, N. Mex.
		Thos. H. O'Brien, general manager.	Dawson, N. Mex.
Dawson, Nos. 1, 2, 4, and 5.	Stag Cañon Fuel Co....	Jo Smith, general superintendent.	Do.
Yankee mines—			
Llewellyn.....	Yankee Fuel Co.....	H. W. Kruse, general manager.	Raton, N. Mex.
Sperry.....		Bert Lloyd, superintendent.	Yankee, N. Mex.
Honeyfield.....	M. R. Mendelsohn.....	M. R. Mendelsohn.....	Raton, N. Mex.
LINCOLN COUNTY:			
Old Abe.....	Old Abe Mining Co....	John Y. Hewitt, general manager.	White Oaks, N. Mex.
Gray.....	S. T. Gray.....	S. T. Gray.....	Capitan, N. Mex.
Willow Springs.....	Mrs. McIvers.....	Mrs. McIvers.....	Carrizosa, N. Mex.
MCKINLEY COUNTY:			
Weaver.....	Victor-American Fuel Co.	Geo. W. Bowen, president....	E. & C. Building, Denver, Colo.
Heaton.....		W. J. Murray, general manager of mines.	Do.
Navajo.....		Wm. McDermott, general superintendent.	Gibson, N. Mex.
Bartlett.....		John Jennings, superintendent.	Do.
Clark.....		Sam Woods, superintendent.	Do.
Otero.....		John Beddow, superintendent.	Do.
Thatcher.....		Jack Hamilton, superintendent.	Do.
Gallup.....			
Catalpa.....			

* Not operated.

Directory of coal mines, 1910—Continued.

Mine.	Owner.	Manager or superintendent.	Post-office.
McKINLEY COUNTY—Continued.			
Union.....	{ Gallup - Southwestern Coal Co.	{ Samuel Bushman, general manager.	Gallup, N. Mex.
Enterprise.....	James Brown and Hutchinson Brown.	{ Charles Myers, superintendent.	Do.
Casma.....	Diamond Coal Co.....	James Brown, general manager.	Do.
Navajo School.....	Government.....	W. J. Patching, superintendent.	Do.
Zuni Reservation.....	do.....	Peter Parquette, superintendent and special disbursing agent.	Fort Defiance, Ariz.
St. Michaels.....	Santa Fe Pacific R. R.	W. J. Oliver, superintendent and special disbursing agent.	Blackrock, N. Mex.
RIO ARRIBA COUNTY:			
Monero.....	{ Rio Arriba Coal Co....	Friar Anselm Weber.....	St. Michaels, Ariz.
McBroom.....		J. H. Crist, general manager...	Monero, N. Mex.
Kutz.....	Geo. W. Kutz.....	Geo. W. Kutz, general manager.	Lumberton, N. Mex.
Burns-Biggs.....	Burns-Biggs Lumber Co.	Barney Carrantha, superintendent.	Do.
Angel.....	San Luis Coal Co.....	A. Luchetti, lessee.....	Monero, N. Mex.
SANDOVAL COUNTY:			
Hagan.....	{ New Mexico Fuel and Iron Co.	{ W. S. Hopewell, president...	Santa Fe, N. Mex.
Sloan.....	J. B. Sloan.....	John W. Sullivan, general manager.	Hagan, N. Mex.
SAN JUAN COUNTY:			
Thomas.....	W. H. Thomas.....	J. B. Sloan, general manager...	Santa Fe, N. Mex.
Enterprise.....	Geo. W. Jones.....	W. H. Thomas, general manager.	Pendleton, N. Mex.
Stevens.....	E. S. Young.....	Geo. W. Jones, superintendent.	Do.
Kirtland.....	W. L. Hendrickson...	Thos. Evans, lessee and operator.	Fruitland, N. Mex.
SANTA FE COUNTY:			
Cerrillos bituminous...	{ Albuquerque and Cerrillos Coal Co.	W. L. Hendrickson, superintendent.	Do.
Cerrillos anthracite...		{ W. H. Hahn, president.....	Albuquerque, N. Mex.
Lewisohn.....	Estate of Leonard Lewisohn.	J. O. Hoen, superintendent...	Medrid, N. Mex.
SIERRA COUNTY:			
Southwestern.....	Southwestern Lead and Coal Co.	A. B. Case, agent.....	San Pedro, N. Mex.
SOCORRO COUNTY:			
Hilton.....	{ Carthage Fuel Co.....	.....	Cutter, N. Mex.
Government.....		{ Powell Stackhouse, jr., general manager.	San Antonio, N. Mex.
Bernal.....		W. L. Weber, general superintendent.	Carthage, N. Mex.
McIntyre.....		Bart. Kinney, assistant general superintendent.	Do.
Emerson.....	Emerson & Allaire....	{ P. A. Allaire, general manager.	San Antonio, N. Mex.
		Robert McIntyre, superintendent.	Carthage, N. Mex.

* Not operated.

COAL MINING AND INSPECTION.**BERNALILLO COUNTY.**

From the several isolated remnants of the coal measures found in various parts of Bernalillo County and in adjacent counties it is evident that the greater part, if not all of its area, once contained workable coal seams.

ANTONIO SEDILLO GRANT.

On the Antonio Sedillo grant three coal seams outcrop, but only the middle one is thick enough to be worked. A slope has been driven on this to a depth of 30 feet. The seam dips about 26°.

TOCCO MINE.

Several openings have been made in small seams of coal in calcareous shales and limestones on the southeastern flank of the Sandia Mountain Range, but the only one from which coal is marketed is the Tocco.

This is located in section 31, T. 11 N., R. 6 E., New Mexico principal base and meridian. It is owned and operated by John Tocco. The nearest railroad points are Albuquerque, on the Atchison, Topeka and Santa Fe Railway, and Moriarty, on the Santa Fe Central Railway, each about 20 miles distant.

This mine has the distinction of operating the thinnest coal seam developed in New Mexico—one of the thinnest worked in the United States, and one that ranks also with the thinnest operated in Europe. The seam is from 12 to 15 inches thick, with 1 to 3 inches of bony coal at the top, leaving from 10 to 13 inches of clean coal to be mined. A slope has been sunk 355 feet, with an average dip of 25°, and cross entries have been driven about 30 feet apart. The props used are from 10 to 18½ inches long. The coal is bituminous, free from sulphur, and is a very good blacksmith's coal. The product of the mine is hauled to Albuquerque, N. Mex., where it is sold for blacksmithing purposes at from \$9 to \$12 per ton of 2,000 pounds.

The mine was operated about 120 days during the year. Average number of men employed underground, 3; average number outside, 1; net product, 120 tons; value at the mine, \$1,200.

Dynamite—40 per cent—was used for blasting in the rock work, the coal being pick mined. About 50 pounds of dynamite was used during the fiscal year.

Few men are employed, and since conditions insure comparative safety to the men, and other mines needed attention, this mine was not inspected during the fiscal year. The work being done is principally development.

COLFAX COUNTY.

Colfax County again leads in the production of coal in New Mexico, with 73.28 per cent of the total output of the Territory. The gross output was 2,413,499.60 tons, an increase of 373,849.53 tons, or 13.42 per cent over the gross product of the preceding fiscal year. Of the total output, 13,720 tons were used in operating the mines, 802,676 tons of unwashed coal and slack were sent to the coke ovens, and 1,582,966.60 tons of coal were shipped to market. The total value of coal shipped to market was \$1,917,421.09. The production of coke was 397,102.10 tons, an increase of 12,347.80 tons over the preceding fiscal year. The value of the coke made was \$1,189,965.62, making the total value of the county's coal products in the fiscal year \$3,107,386.71.

In the first four months of the fiscal year some of the larger mines were operated little more than half time on account of lack of demand for the product, but during the last six months the demand has kept the mines constantly employed, dearth of miners tending to keep down the production.

DAWSON MINES.

The Dawson coal mines are owned and operated by the Stag Cañon Fuel Company. The openings in operation are in Tps. 28 and 29 N., R. 20 E., and T. 28 N., R. 21 E. These mines are located on the Raton or Blossburg coal seam, the lower workable seam of the Raton coal field. The thickness of the seam varies from 5 to 11 feet.

Dawson is the largest coal-mining camp in the Territory. The gross production of its mines for the fiscal year was 1,185,962.60 tons, an increase of 89,851.60 tons, or 8.19 per cent over the gross production for the preceding fiscal year. The amount of coal used in operating the mines was 2,388 tons; unwashed coal and slack sent to the washery and coke ovens, 522,858 tons; coal shipped to market, 660,716.60 tons; approximate price per ton at the mine, \$1.25; estimated value of coal shipped to market, \$825,895.75. The coke made was 263,034.10 tons; approximate price per ton at the ovens, \$3; estimated value of total output of coke at the ovens, \$789,102.30. Total value of coal and coke shipped from Dawson mines and coke ovens, \$1,614,998.05.

The coal and coke are shipped via the El Paso and Southwestern Railroad and connecting lines, and are sold in Arizona, Kansas, Oklahoma, Texas, and the Southwest. Four openings are in operation, known as mines Nos. 1, 2, 4, and 5. The mines were operated 267½ days during the fiscal year. Miners employed, 588; company men underground, including all not digging coal, 176; boys underground, 19; total number of persons employed underground, 783; men employed outside at the mines, 103; boys outside at the mines, 3; total, 106.

The various percentages of the different nationalities employed in the Dawson mines is typical of the heterogeneous population of coal-mining camps. The figures for underground employees are: Americans, including negroes and all English-speaking employees, 12.67 per cent; Finlanders, 0.33 per cent; Austrians, 6.40 per cent; French, 0.80 per cent; Germans, 1.47 per cent; Italians, 39.68 per cent; Swedes 0.40 per cent; Greeks, 9.65 per cent; Slavonians, 16.19 per cent; Spaniards, 0.23 per cent; Japanese, 1.08 per cent; Spanish-speaking natives of New Mexico and Mexico, 8.96 per cent; Hungarians, 2.14 per cent; total, 100 per cent. All of the English-speaking underground employees could write, as shown by signatures to vouchers, and about 75 per cent of the others.

The following are the percentages of the different nationalities employed outside: Americans, including English-speaking persons, 44.40 per cent; Germans, 2.23 per cent; Italians, 32.16 per cent; Austrians, 0.53 per cent; French, 0.08 per cent; Greeks, 2.12 per cent; Slavonians, 0.14 per cent; Spanish, 1.16 per cent; Spanish-speaking natives of New Mexico and Mexico, 17.18 per cent. As shown by signatures to vouchers, about 90 per cent of all outside employees could write.

Dawson is one of the most up-to-date coal-mining camps of the world. The most improved equipment is in use at the mines and coke ovens. The ovens have underflues, and the hot waste gases are utilized under boilers for generating the electric power for the camp and for heating purposes. This utilization of the coke-oven gases accounts for the small quantity of coal used in operating the mines, as given in the foregoing estimates of production.

The washery is fireproof, being built entirely of concrete and iron. The mine equipment and the coke ovens and washery were described in detail in the report of this office for 1909.

Comfortable houses, at low rental, are provided for employees and their families. A good hotel and several boarding houses furnish accommodation to transient visitors and the bachelor employees. There is a church in charge of an Episcopal clergyman, but free for services of all denominations. There are also three commodious public schools; lodge rooms; a fine theater, which has yearly contracts with some of the best circuit troupes; billiard hall; bowling alleys; stores, where all necessities and many luxuries may be procured; and a bank, where foreign and domestic exchange is issued. These and other modern utilities furnish the town with most of the conveniences and means of instruction and recreation to be found in towns of metropolitan pretensions. Buildings and streets are lighted by electricity; good water is supplied free, and the town is policed by efficient officers.

A more complete description of the town of Dawson was published in the last annual report of this office.

The machinery at the mines is operated by electricity and has a capacity of 2,310 horsepower. Sixteen motors, Jeffreys, Westinghouse, and Goodman types, haul the loaded cars from the partings within the mine to the yards outside at No. 1 and No. 2 mines, to the tippie at No. 5 mine, and to the parting at head of incline to the tippie at No. 4 mine, whence the cars are lowered by rope to the tippie. The motors haul the empty mine cars back into the mines. At mines Nos. 1 and 2 five steam locomotives—Porter, Vulcan, and Lima makes—haul the loaded mine cars from the mines to the tippie. Four Goodman and two Sullivan mining machines are used intermittently, about 2 per cent of the coal produced being mined by machine. Each mine has a water system for protection against fire and for humidifying the mine air. The water mains along the main entry are 3-inch pipe, with 2-inch pipe in all laterals and cross entries. Sprayers are installed at intervals of about 400 feet in the intake airways.

Although little fire damp has been found in the mines, the management gives careful attention to keeping the mines clear of gas and maintaining thorough ventilation. Eleven fire bosses are employed in the four mines. The fire bosses examine all workings for indications of fire damp or other noxious gas before the men are allowed to enter the mine. A record book is kept in a check cabin, near the mouth of each mine, wherein a record is made of gases found, and the miners are prevented from going into a locality where gas is considered dangerous.

A very commendable method put in practice during the past year is to have each fire boss report any unsafe conditions in the working places which it is his duty to examine. He notes unsafe conditions in a memorandum book supplied him and marks the unsafe spot or locality. This record applies to timbers lacking, timbers broken, unsafe roof, etc. When the fire boss comes from the mine he copies these notes in a record book, duplicated by carbon sheet, stating particularly where there is imminent danger and need of immediate attention. It is the duty of the pit boss, when he comes on shift, to examine this record, and if any place needs immediate attention he

keeps the workmen out, and either goes himself to the place or sends an experienced workman to remedy the dangerous condition at once. The pit boss tears out the duplicate record from the book and carries it into the mine, and it is mandatory that he visit each place noted as requiring attention before noon that day and remedy the conditions the fire boss complained of. By this method some person is made responsible for a knowledge of conditions at every place within the mine, and if an accident occurs the responsibility can be placed definitely. It is true that a workman may quickly change a safe condition to a dangerous one, as by a few blows of the pick; but such changes, made after rooms or entries have been shot, usually the preceding night, are easily discernible.

Fire bosses dislike the responsibility thus placed upon them; but the responsibility for safe conditions in a mine should be placed upon some official, and who should be so competent and careful as a fire boss?

Both fatal and nonfatal accidents at these mines have decreased decidedly since the improved methods have been applied.

The company employs a mine inspector, who oversees the work of all other persons especially employed to maintain safety. He makes continuous inspections of all the mines; draws samples of the atmosphere from inaccessible places in caved gobs and old workings by a gob pump, and passes the samples into his safety lamp, noting their action upon the flame. He also checks up other conditions pertaining to the safety of the men. If any condition requires attention he can order it remedied without delay or have work suspended. He makes a daily report to the general superintendent, who, in turn, sends it to the general manager. Thus the administration is in touch from the miner to the general manager, and the preservation of the safety of the men employed is made of first importance among the varied duties of the administration.

System of mining: Triple main entry; double cross entry; room and pillar, robbing on retreat. All main drift entries are 10 feet wide by 6 feet high; main cross entries, 8 feet by 6 feet. Cross entries off cross entries are 8 feet wide by 5 feet 6 inches high; main air courses are 10 feet by 6 feet, and other air courses 8 feet wide by 6 feet. All workings are substantially timbered, and haulage ways and traveling roads are lighted by electricity. Main entry pillars are from 100 to 300 feet thick; main cross entry pillars, 50 to 100 feet. Average length of rooms, 350 feet; room centers, 60 feet; width of rooms, 20 feet; size of room pillars, 40 feet. The mines are ventilated by exhaust fans on the surface.

Shots are fired by electricity after all persons are out of the mine. To make it certain that the men are all out, the following system is pursued: Each man must deposit a metal check, stamped with his number, before entering the mine, and must call for this check when he leaves the mine. A responsible man receives and returns the checks at each mine. In case an employee leaves the mine and neglects to turn in his check before shot-firing time in the evening a man is sent to his working place to find him; inquiry is made at his domicile and continued until his whereabouts is definitely ascertained. The derelict is charged with the price of the time of the man employed to seek him; consequently there are few who break the check rules.

Manways which the miners are required to travel have been constructed during the past year. The manways are lighted by electric lamps; there is no haulage equipment along them, and consequently no danger of men being killed or injured by mine cars while going to or coming from their working places.

A telephone system extends throughout the principal workings. Instruments are placed at the most convenient places within the mines whence messages can be sent to any place in the camp or connections made with the long-distance phone at the central station.

THE SMITH GOB PUMP.

The Smith gob pump used at these mines consists of two small brass cylinders, to which may be attached sections of three-eighths-inch gas pipe. The last section of pipe is closed at the outer end to keep out dirt when the pipe is pushed into the gob, but this length has perforations, one-sixteenth-inch diameter, for 2 or 3 inches from the end. The sections are 6 feet long for convenience in carrying. The operator, in testing for mine gases on top of caved gobs, may either crawl up as far as possible and then push up the pipe length by length until it reaches the top of the cave or some obstruction stops it, or he may stand in a place of safety outside of the caved ground and extend his pipes thence to the desired point in the gob. A Wolf safety lamp, with a patent connection ring in place of the usual ring above the fount, is then attached to the pump and the plunger of the pump moved slowly back and forth for four or five strokes. The mixture of gases that enters the holes at the end of the pipe is thus forced through the lamp, and the presence of any explosive mixture above the gob is indicated by the flame.

For testing gobs that can not otherwise be reached without considerable difficulty, danger, or expense the writer recommends the use of this pump. Where places are gobbled alongside of roadways or rooms the pipe can be pushed in 30 or 50 feet laterally and samples of the air taken and tested upon the lamp. In dangerous gobs where pillars are being drawn and the top is moving badly, and where a fire boss could justly hesitate to go, he could push the gas pipe up as far as 50 feet and discover what sort of an atmosphere there was above.

The pump is light and portable, weighing not over 4 pounds, and can be carried in a small sack swung over the shoulder, while the sections of gas pipe can be conveniently carried in the hand. In using the pump care must be taken to have the pump and pipe freed from the atmosphere with which it was last filled. To do this it is best to push the pipes to place to be tested in the gob, then attach the pump and make five or six strokes of the pump before attaching to the lamp. If the pump and pipes be used again within half an hour after being used in a gaseous place, the lamp will fill with the gas remaining inert in the pump and pipes, and if an attempt is made to clear the pipes by blowing the breath through them before attaching to the pump and lamp, the lamp will be extinguished by the CO₂ contained in the exhaled air remaining in the pipes.

This pump is the invention of Jo Smith, general superintendent of the Stag Cañon Fuel Company, Dawson, N. Mex.

RESCUE STATION.

The rescue station (see Pl. I) was completed within the past year. The main building, which is of the mission style and presents

a pleasing yet substantial appearance, comprises a basement and first floor. The basement has a cement floor and stone and concrete walls. The upper story of the building is of stucco or pebble dash. The building is conveniently located against a hill, into which two tunnels 9 feet apart have been driven a distance of 32 feet each and connected by a crosscut at the rear. At the middle of the back side of the crosscut is a recess 8 feet square. When men are practicing in the use of rescue apparatus a fire is built in the recess, and chemicals that produce noxious and irrespirable fumes are thrown on it. Practice with rescue helmets in this vitiated atmosphere gives a man confidence that the apparatus will stand him in good stead when entering a mine immediately after an explosion, or when the air of a mine is vitiated by the fumes from a fire or other cause.

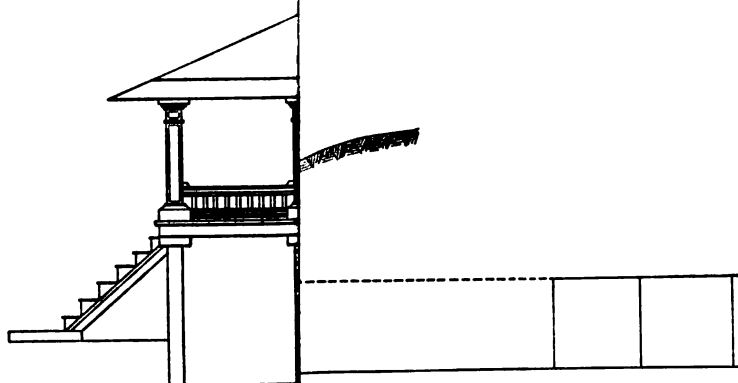
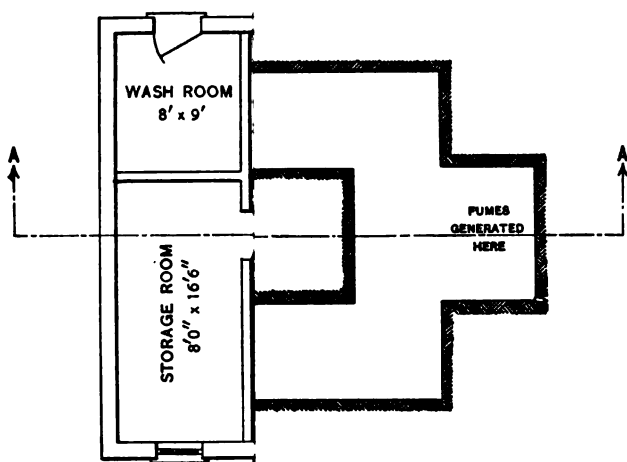
At the mouth of each of these tunnels is an air-tight building, or practice gallery, with three windows and a glazed door. From a 9-foot space between the practice galleries men who are taking lessons can observe their comrades wearing helmets and practicing various mine duties in the smoke-laden atmosphere of the galleries. The tunnels and galleries are fitted with electric lights, but so dense are the fumes within that the lights are almost obscured, and the men inside carry portable electric lights. In the basement of the main building, forward of and adjoining the practice tunnels and galleries, is the furnace room, 8 by 26 feet; next it is the apparatus room, 22 by 26 feet. In this room the men are drilled in taking apart and reassembling the helmets used. They are also taught how to charge the cylinders for the helmets with oxygen from stock tanks, and how to put the helmets on and take them off quickly and carefully. In front of the apparatus room is the storage room where the oxygen tanks and other requisites are stored; here are kept constantly on hand 800 cubic feet of oxygen. In addition to the furnace room and the storage room, the basement contains a wash room.

The upper story has a porch 8 by 26 feet. A hallway 5 feet wide and 14 feet long divides the front part of this floor into two rooms 10 feet 6 inches by 14 feet, one being used as an office and the other for a library. The hallway leads to a meeting room, 23 feet 6 inches by 26 feet. This room is furnished with desks and chairs to accommodate pupils listening to lectures on rescue work and other subjects helpful to the practical miner. The building is heated by steam and lighted by electricity.

Practice meetings, at which the men familiarize themselves with the use of helmets in rescue work, are held two nights each week. Night-school classes are held two nights a week for men taking correspondence courses and for anyone who may care to attend, and a technical library is being installed.

The equipment of the rescue station comprises 2 Draeger apparatus, helmet type; 1 Aerolith apparatus; 1 Shamrock apparatus, mouth-breathing type; 1 compressed-air helmet; 2 pulmotors; and 1 Draeger oxygen refill pump. Other helmets or rescue apparatus will be added as soon as the various devices have been thoroughly tested and it is decided which is thought best adapted to the work.

This rescue station is, without doubt, one of the best extant, and will be second to none when the full equipment is installed.



MINE NO. 1.

No. 1 mine is opened by a main drift entry 3,259.22 feet in length; several cross entries are from half to three-fourths of a mile long and are being extended. The first north entry, turned off the main entry, 975 feet from its mouth, is 4,477 feet long. From the end of this entry a 45° slope is being driven to the surface in Rail Canyon to serve as an escape way. This slope will be 206 feet in length, and will have a straight stairway from top to bottom, with landings at necessary intervals. This mine is ventilated by a Vulcan 24 by 8 foot double-inlet reversible fan, belt driven by one 50-horsepower alternating-current motor and one 25-horsepower auxiliary direct-current motor. The fan runs at 60 revolutions per minute and exhausts 68,000 cubic feet of air per minute, at 1.1-inch water gage.

MINE NO. 2.

This mine has five openings, including manway and air course. These openings are at convenient intervals along a distance of 1,000 feet on the outcrop. Length of old No. 2 main entry extended west, 5,357 feet. Length of high-line entry to new air shaft, 5,537.45 feet. Several cross entries are from 1,500 to 3,500 feet in length.

This mine is at present ventilated by a Vulcan 24 by 8 foot fan, like that at No. 1 mine, belt driven by one 50-horsepower direct-current motor and one 50-horsepower alternating-current motor. This fan runs 82 revolutions per minute and exhausts 94,000 cubic feet of air per minute with 1.8-inch water gage. A new fan shaft, just completed, will change the course of the ventilating current. This shaft is located 5,537 feet from the mouth of the high-line main entry and about 30 feet from the entry. The shaft is 207 feet deep from the surface, concrete lined throughout; dimensions of shaft, nearly 10 by 15 feet in the clear, the exact area of the cross section inside the concrete lining being 148 square feet. Near the mouth of this shaft there was being installed at the time of writing a Jeffries 18 by 6 foot double inlet (primarily exhaust) reversible fan, with a capacity of 400,000 cubic feet of air per minute with 5-inch water gage. This fan will be driven by a Western Electric Company 150-horsepower alternating-current induction motor. The fan is placed 53 feet from the center of the shaft to be out of direct line of violence in the event of an explosion within the mine, and the upper 14 feet of the shaft is sloped on one side to conduct air to fan. The fan house is of masonry and concrete, with concrete roof, and is fireproof. On top of the shaft an explosion door is so adjusted as to give vent to any violent action from below and divert pressure from the fan.

A steel stairway, with landings at frequent intervals, will be built (or is now completed) in the fan shaft to afford egress in case of accident.

When the fan is in operation all of the main drift entries to the surface will become intakes and the splitting of the air within the mine will be much facilitated. The fan will be working before September 15, 1910.

MINE NO. 4.

Four drift entries from the surface give ingress or egress. Length of main entry, 3,999.53 feet; lengths of first north entry and third

north entry, respectively, off main entry, 1,995 feet and 1,906 feet. This mine is ventilated by a Cole 15 by 5 foot fan, double inlet and reversible, running at a speed of 82 revolutions per minute and exhausting 70,000 cubic feet of air per minute, at 0.8-inch water gage. This fan is belt driven by one 50-horsepower alternating-current variable speed motor.

MINE NO. 5.

No. 5 mine is opened by an entry driven through the mountain from Rail Canyon to the Vermejo River, a distance of 5,770 feet. The first north entry is driven 3,450 feet from departure from the main entry, or 4,030 feet from the pit mouth. There are several other long entries in the mine. The mine is worked from the Vermejo River opening, where are located the tipple, mine offices, etc. A fan and motor of the same class and size as on No. 4 mine ventilate the mine. The fan makes 68 revolutions, and exhausts 73,000 cubic feet of air per minute, at 0.8-inch water gage.

RECORD OF INSPECTION.

October 11, 1909.—Mine No. 1: Total air intake, 59,410 cubic feet per minute. Observation at mouth of main entry: Dry-bulb thermometer, 52°; wet-bulb thermometer, 43°; barometer, 23.7 inches; relative humidity, 52 per cent. Observation about 60 feet inside of sprayer and 400 feet inside mouth of main entry: Dry-bulb thermometer, 49.5°; wet-bulb thermometer, 43°; barometer, 23.7 inches; relative humidity, 62 per cent. Observation at last crosscut from manway to main entry, about 4,000 feet from mouth of mine; air traveling, $a33$ square feet (6 by 5.5 feet) $\times v200=6,600$ cubic feet per minute: Dry-bulb thermometer, 56°; wet-bulb thermometer, 50°; barometer, 23.65 inches; relative humidity, 69 per cent. Observation at end of second north entry, about 1 mile from mouth of mine, air traveling, $a63.25$ square feet (11 by 5.75 feet) $\times v90=5,692$ cubic feet per minute: Dry-bulb thermometer, 57°; wet-bulb thermometer, 55°; barometer, 23.7 inches; relative humidity, 89 per cent. Observation at return to fan (exhaust), 60 revolutions per minute; water gage, 1.1 inches; air return $a54$ square feet $\times v1,300=70,200$ cubic feet per minute; dry-bulb thermometer, 57°; wet-bulb thermometer, 54°; barometer, 23.6 inches; relative humidity, 84 per cent. The air current passes over wet areas in the mine, from which water is pumped. The dry parts of the mine are sprinkled by hose from the pipe-line system. Found carelessness in placing shots, so that roof is shattered. Gave necessary instructions. There were 144 miners, 31 company men, and 5 trappers, total 180 persons, and 18 mules underground.

February 10, 1910.—Mine No. 1: Examined fire boss's report books, one noting gaseous conditions and the other noting bad top, timbers out, etc. Found that conditions were being closely watched and unsafe conditions remedied. Air intake through manway and main entry, 55,050 cubic feet per minute, some air also entering through caved ground. Dry-bulb thermometer, 28°; wet-bulb thermometer, 24°; barometer, 23.55 inches; relative humidity, 60 per cent. There were 153 miners, 38 company men, and 3 boys underground; also 16 mules. Air return to fan, 77,000 cubic feet per minute; dry-bulb thermometer, 50°; wet-bulb thermometer, 50°; barometer, 23.47 inches; relative humidity, 100 per cent. Found mine in good condition; all shots fired by electricity when men are out of mine.

April 19, 1910.—Mine No. 1: Examined fire boss's reports and shot firers' reports. Air intake, 2 openings, 54,500 cubic feet per minute. Sprayers in operation at intervals in intake air course. Number of miners underground, 179; company men, 45; boys, 3: total persons underground, 227; number of mules, 19. Fan (exhaust), 60 revolutions per minute; water gage, 1.1 inches. Air return, 59,400 cubic feet per minute. Traversed about 8 miles of the workings in operation. Found mine in good condition.

May 13, 1910.—Mine No. 1: Read fire boss's daily record of where fire damp was found, if any; also fire boss's special report book of unsafe conditions; found small feeder of gas reported in face of 13 cross entry off first north

entry. Found that proper attention is being given to the records, with exception hereinafter noted. Air intake, 53,275 cubic feet per minute. Number of miners underground, 161; company men, 45; boys, 4; total number of persons underground, 210; number of mules, 20. Fan (exhaust), 59 revolutions per minute; water gage, 1 inch. Air return to fan, 66,150 cubic feet per minute; some air leaking into mine through caved ground on first south entry. Three shot examiners and 3 fire bosses employed in this mine. The shot examiners examine holes and if approved give the miner caps necessary to explode the shots; holes not properly placed are condemned and must be prepared in proper manner before being loaded and fired. The shot examiners return to the mine after the shots have been fired and investigate conditions as to missed shots and to guard against fire caused by ignition of gas feeders or of the coal. For duties of fire bosses and the records they keep, see pages 28 and 29.

Number of shots fired on last shift, 156; number of shots missed, 3; total number of shots placed, 159; percentage of missed shots, 1.88. Found face of 18 cross entry about 50 feet ahead of last crosscut, and CH₄ venting in face of 13 cross entry. Instructed that canvas be put up to carry air to face until another crosscut is made; canvas was put up within 2 hours. In 2 rooms visited miners were loading coal under dangerous top, with roof about 9 feet above. In one instance the miners (foreigners who spoke little English) began to clean away coal to put up a prop and cross bar immediately; in the other instance the miners who spoke good English and appeared to have had experience in mining were insolent in demeanor. The company mine inspector left instructions that the driver give them no more cars until they put up the 2 props they were requested to set.

October 8, 1909.—Mine No. 2: Investigated conditions attending accident whereby Alex Rokovich was killed by empty mine car and also accident whereby Frank Morono was killed by fall of rock in No. 2 mine, as related in accident reports for July and August, 1909. Found upon investigation that reports submitted are correct. Consulted with new officials, Thos. O'Brien, general manager, and Jo Smith, general superintendent, in regard to improved discipline to lessen number of fatalities.

October 9, 1909.—Mine No. 2: Read fire boss's reports; gas reported on 2 mornings in past 2 months. Air intake on high-line entry, 24,080 cubic feet per minute; dry-bulb thermometer, 33°; wet-bulb thermometer, 27°; barometer, 23.8 inches; relative humidity, 49 per cent at mouth of entry. Sprayer used in entry beyond this point at night, not in the daytime. Air traveling in last crosscut between high-line main and back entry, 5,800 cubic feet per minute; dry-bulb thermometer, 60°; wet-bulb thermometer, 59°; barometer, 23.83 inches; relative humidity, 95 per cent. Air intake No. 2 main entry outside of sprayer, 26,460 cubic feet per minute; dry-bulb thermometer, 45°; wet-bulb thermometer, 38°; barometer, 23.8 inches; relative humidity, 57 per cent. Air traveling in last crosscut No. 2 main entry, 13,000 cubic feet per minute; dry-bulb thermometer, 64°; wet-bulb thermometer, 62°; relative humidity, 90 per cent. A sprayer about 600 feet inside the mouth of the entry is operated continuously. Air intake through fifth west entry from No. 3 mine entry, 8,240 cubic feet per minute. Total intake, 58,780 cubic feet per minute. Fan (exhaust), 67 revolutions per minute; water gage, 1.5 inches; air return, 67,200 cubic feet per minute; dry-bulb thermometer, 60°; wet-bulb thermometer, 60°; barometer, 23.65 inches.

This mine is equipped throughout with a system of pipe lines and hose for sprinkling rooms and entries; the quantity of water introduced by this means and by sprayers has not yet been ascertained. It would be very difficult to determine or even closely approximate the amount of moisture, if any, taken by the air from the floors and coal faces of this mine, as conditions are at present. One sprayer is operated continuously in No. 2 main entry day and night and another in the high-line entry at night only. A man is constantly employed in daytime sprinkling the rooms and entries in dry areas. Another potent factor in humidifying the air are the wet areas wherein there are places with standing water, over which the air currents travel. Observations taken at the mouth of the mine and at 500 feet inside of the sprayer or 1,100 feet inside mouth of No. 2 main entry show an average increase of 5 per cent in the relative humidity of the intake air at the latter point. Good results and improved conditions of the air within this mine are shown from sprinkling and the use of sprayers.

February 12, 1910.—Mine No. 2: Examined fire boss's report books; found that close attention is given to safety of men. Total air intake from 3 in-

takes, 62,320 cubic feet per minute; dry-bulb thermometer, 35°; wet-bulb thermometer, 31°; barometer, 23.6 inches; relative humidity, 68 per cent. There were 228 miners, 54 company men, and 5 boys, total 287 persons; underground, and 20 mules. Air return to fan, 92,000 cubic feet per minute; dry-bulb thermometer, 53°; wet-bulb thermometer, 55°; barometer, 22.5 inches; relative humidity, (?). Found great care being exercised for the safety of the men.

April 20, 1910.—Mine No. 2: Examined fire boss's and shot firers' records. Air intake, 3 sources, 57,440 cubic feet per minute. Sprayers in intake air courses. Miners, 247; company men, 51; boys, 2; total persons underground, 300; also 22 mules. Air return to fan, 96,000 cubic feet per minute; fan (exhaust), 66 revolutions per minute; water gage, 1.1 inches; some air leaking from No. 5 mine into the return. New fan shaft, 200 feet in depth, to connect with mine working 1 mile from mouth of mine, being constructed; will also be another escape way in case of emergency. Concrete lining and iron stairway not yet finished.

May 14, 1910.—Mine No. 2: Read fire boss's and shot firers' report books. Air intake, 66,685 cubic feet per minute. There were 220 miners, 44 company men, and 4 boys, a total of 268 persons, underground, and 22 mules depending on this air. Fan (exhaust), 70 revolutions per minute; water gage, 1 inch. Air return to fan from inside of mine, 74,400 cubic feet per minute; total return to fan, 92,200 cubic feet per minute, the excess of air return being derived from leaks into return near mouth of mine. Traced discrepancies in air measurements between intake and return. Number of shots fired, 144; number missed, 3; total number of shots placed, 14; percentage of missed shots, 2.04. Mine in good condition.

June 10, 1910.—Investigated conditions attending accident whereby Juan Perez was killed by fall of top coal, at 10 a. m. yesterday morning, in pillar of room No. 8, tenth east entry, No. 2 mine. Went to place in mine where accident occurred, together with G. E. Dunn, fire boss, O. G. Brooks, pillar boss, and T. Tinsley, superintendent. Messrs. Dunn and Brooks stated they had warned deceased that piece of top coal was dangerous and to place a prop without delay. Deceased could have stood in place of safety while wedging the prop, but stood where it was dangerous and was caught. Questioned Juan Serano, his working partner, who corroborated above statement.

June 11, 1910.—Investigated conditions attending accident whereby John Gollk was killed, in No. 10 room, eighth entry, No. 2 mine, May 24, 1910. Pillar was drawn and place caved. Superintendent and fire bosses stated that the top coal and rock which fell had been marked "dangerous" and for prop to be set. They also stated that there were props at hand in the room. Tony Maxcy, working partner of deceased, stated that the props were at the parting 400 feet distant, but that deceased knew the rock and coal was dangerous when he started to work under it, in disobedience of mine rules.

June 13, 1910.—Mine No. 2: Air intake through two openings, 44,100 cubic feet per minute; air also leaking into mine through cracks in surface over caved ground. Read fire bosses' record books. Miners underground, 222; company men, 43; boys, 5; total number of persons underground, 270; also 19 mules. Air return to fan, 80,000 cubic feet per minute. Fan (exhaust), 69 revolutions per minute; water gage, 1.7 inches; vacuum gage, 1.7 inches. Shots ignited Saturday night, 106; shots fired, 103; shots missed, 3; percentage of shots missed, 2.83. Found that the electric lamps along more than a mile of traveling way in the mine were nearly all broken by the men, through wanton maliciousness, because they are compelled to go in and out by the traveling way for their own protection. No law to punish them. Inspected caved gobs in No. 2 mine, where pillars had been drawn. Made tests on top of several of the gobs in caved ground, but could find no indication of fire damp, using a Wolf safety lamp. Also used the Jo Smith gob pump as an aid in making tests.

At room 20, eighth east entry off first north entry, the writer, with Edmund Thomas, mine inspector of the Stag Cañon Fuel Company, crawled to the highest point attainable above the caved rock in the gob. Made repeated tests with Wolf safety lamps; could not find any indication of foreign gas in mine air. Then pushed up section after section of the $\frac{1}{4}$ -inch gas pipe, 24 feet in all, through openings between the rocks and the roof, at an angle of about 45°, when further progress of the pipe was obstructed. After a few strokes of the pump the following reaction was noted upon the flame of the Wolf safety lamp, the flame of which had been lowered at a height of one-fourth inch. Immediately above the wick a bright blue flame, three-fourths inch high, full size of wick; not a cap encircling top of lamp flame as given by fire damp; above the blue

flame was a flame one-fourth inch high, yellow, but slightly tinged with pink; above, and enveloping both of the flames described, was a cap, of a hazy gray color, from 3 to 5 inches high, closely resembling the cap produced by fire damp in a safety lamp when the lamp is filling with fire damp and about to flash; but this mixture would not flash nor explode in the lamp. This mixture, if forced into the lamp quickly, never failed (during repeated tests) to extinguish the lamp. When the pump was worked slowly combustion was maintained in the lamp, but the outer enveloping cap became more indistinct and disappeared, leaving the blue flame and the yellow flame. The latter showed a more distinct pink cap, while the blue flame became shorter with continued pumping.

An analysis of the mixture from the same place, previously made for CO, and CH₄, by Mr. J. B. Merrow, chemist for the company, gave results as follows: CO₂=0.40; CH₄=0.85. This mixture with air would not preclude combustion without the presence of other incombustible gas.

This mixture, giving the above-described reactions upon the lamp, is frequently found when the top in the gob breaks up as far as a coal seam 10 inches in thickness, which is situated 15 to 30 feet above the Raton coal seam in these measures. The coal of this smaller seam appears to carry a large percentage of heavy hydrocarbons and can be lighted with a match like a cannel coal.

October 12, 1909.—Mine No. 4: Air intake at 900 feet from mouth of main entry, at junction of intakes, $450 \text{ square feet} \times 4550 = 27,500$ cubic feet per minute; dry-bulb thermometer, 46°; wet-bulb thermometer, 41°; barometer, 23.5 inches; relative humidity, 89 per cent. Air return to fan, $464 \text{ square feet} \times 61,130 = 72,300$ cubic feet per minute. Fan, 84 revolutions per minute; water gage, 1.4 inches; dry-bulb thermometer, 55°; wet-bulb thermometer, 52°; barometer, 23.43 inches; relative humidity, 84 per cent. Found return air far in excess of intake. Found that the superintendent's record heretofore showed same excess; did not have time to trace the origin of excess air returning to fan. Instructed the mine superintendent to do so. Found places where mine is insufficiently timbered; instructed that mine be properly timbered. The mine is sprinkled by hose from pipe-line system. There were 141 miners and 23 company men, a total of 164 persons, and 16 mules underground.

February 14, 1910.—Mine No. 4: Air intake through two openings, 48,825 cubic feet per minute. No. 1 opening, rock tunnel, intake 23,625 cubic feet per minute; dry-bulb thermometer, 31°; wet-bulb thermometer, 27°; barometer, 23.7 inches; relative humidity, 64 per cent. No. 2 opening, manway, 25,200 cubic feet per minute; dry-bulb thermometer, 36°; wet-bulb thermometer, 28°; barometer, 23.7 inches; relative humidity, 39 per cent. Air return to fan, 62,000 cubic feet per minute; dry-bulb thermometer, 48.5°; wet-bulb thermometer, 48°; barometer, 23.65 inches; relative humidity, 97 per cent. There were 147 miners, 34 company men, and 2 boys, a total of 183 persons, underground. Examined fire boss's record books; found that methods are conducive to safety of men. Traversed about 4 miles of workings underground. Found mine in good condition. All shots fired by electricity when men are all out of mine.

February 15, 1910.—Drilled and trained with W. E. Mingramm, general manager Draeger oxygen apparatus, and Mr. Merrow, chemist of the Stag Cañon Fuel Company, at the Dawson rescue station. Went into smoke tunnels filled with dense fumes of burning sulphur; nailed up brattice; crawled about; took exercise; shut off oxygen valve and breathed from excess oxygen in bag. Remained in tunnels 40 minutes first time, exercising; 25 minutes second time. Studied mechanism of the apparatus and manner of testing it and putting it on.

April 22, 1910.—Mine No. 4: Air intake, two sources, 55,375 cubic feet per minute. There were underground miners, 164; company men, 32; boys, 3; total, 199 persons; also 23 mules. Fan (exhaust), 82 revolutions per minute; water gage, 0.7 inch. Air return to fan, 63,960 cubic feet per minute. Found new manway being constructed, that men will not have to travel main haulage road. Mine in good condition.

May 12, 1910.—Mine No. 4: Investigated conditions attending fatal accident whereby Tom Nickolinis, a Greek miner, was killed by fall of rock about 10 p. m., May 2, 1910, in this mine. Examined place where deceased was killed; the place not worked and conditions unchanged since accident. It was evident that deceased was a careful miner, as his place was well timbered. The rock which fell was a dome-shaped pot; it fell between timbers that were close as could be expected in practical mining; it was about 2½ feet thick and would not have given signs of being loose if sounded. The accident might be classed as almost unavoidable. Examined fire boss's daily report of fire damp found;

no gas found since my last inspection. Examined fire boss's special report of unsafe conditions in the mine. Found that strict attention is being paid to same. Number of miners underground, 181; company men, 34; boys, 3; total, 218 persons; also 13 mules. Traversed about 2 miles of workings in operation. Found work upon new manway being prosecuted with diligence and general conditions of mine good. Number of shots fired yesterday, 174; number of shots missed, 8; total number of shots placed, 177; percentage of shots missed, 1.69.

February 11, 1910.—Mine No. 5: Examined fire boss's two books of records; close attention being paid to same by mine officials. Total air intake from three openings, 65,585 cubic feet per minute; 15,960 cubic feet of this air goes to No. 2 fan, and No. 5 fan still shows a return of 66,500 cubic feet per minute. There were 187 miners, 43 company men, and 2 boys, a total of 232 persons, and 21 mules underground. There are three intakes: No. 1 intake, 16,300 cubic feet per minute; dry-bulb thermometer, 28°; wet-bulb thermometer, 28°; barometer, 23.8 inches; relative humidity, 100 per cent. No. 2 intake, 37,125 cubic feet per minute; dry-bulb thermometer, 28°; wet-bulb thermometer, 30°; barometer, 22 inches. No. 3 intake, 12,160 cubic feet per minute; dry-bulb thermometer, 22°; wet-bulb thermometer, 25° barometer, 23.7 inches.

April 21, 1910.—Mine No. 5: Examined records of fire bosses, shot firers, and other officials. Air intake, three sources, 82,017 cubic feet per minute. Persons underground, 200 miners, 41 company men, 4 boys; total, 245; also 33 mules. Fan (exhaust), 84 revolutions per minute; water gage, 0.8 inch. Air return to No. 3 fan, 64,600 cubic feet per minute, part of intake air leaking to No. 2 fan. Found mine in good condition.

June 15, 1910.—Mine No. 5: Examined fire boss's report book; record of fire damp and of dangerous conditions; found close attention being given to same. Air intake from three sources, 62,792 cubic feet per minute. Persons underground, 190 miners, 40 company men, and 6 boys; total, 236; also 23 mules. Air well distributed. Air return to No. 3 fan, 61,200 cubic feet per minute; return from No. 5 mine to No. 2 fan, 10,400 cubic feet per minute; total return, 71,600 cubic feet per minute. Fan (exhaust), 82 revolutions per minute; water gage, 0.8 inch. Found some miners working in pillars under dangerous top who had delayed setting props to make their working place safe. No law to compel them to look after their own safety.

GENERAL RULES.

The following rules and regulations have been adopted by the Stag Cañon Fuel Company for the government and operation of its mines:

1. It shall be the duty of each and every employee of this company to inform himself in reference to his duties under the mining laws of this Territory and to comply strictly therewith.

2. No person in a state of intoxication shall be allowed on any of the works or allowed to enter any of the mines under penalty of prosecution for trespass under the law.

3. No person or persons shall be allowed to enter any mine except he be a regular employee of that mine, or unless he has a permit from the mine foreman or superintendent.

4. Persons seeking employment shall procure it outside of mine. No boy under 12 years of age shall be permitted to work in any mine.

5. If any person rides upon or in the mine cars going in or out of the mine or on the tram road, he does so at his own risk.

6. All persons, except those duly authorized, are forbidden to meddle or tamper in any way with any electric lights, switches, signal wires, or shooting wires in or about the mines.

7. No person or persons shall go into abandoned parts of any mine unless permission be granted by the mine foreman.

8. All persons before entering the mine must deposit a check at check house and get the same when they come out of the mine.

9. The fire boss shall make, before any person is allowed to enter the mine, a careful inspection with a safety lamp of every working place in the mine, marking the day of the month on the face of the coal in each working place where it can be readily seen. If dangerous gases are found in any working place he will mark on a cap piece or shovel two large crosses with the day of the month between them, thus X 27 X, and will place these marks so that it will be impossible for anyone to pass them without seeing them.

If a quantity of gas is found which in the opinion of the fire boss would endanger the operation of the mine, he is authorized to close the entire mine or any part of it he thinks endangered. The fire boss must always be on the safe side. The fire boss must not allow gas to be moved where men are working in the return air from it.

After complete examination of the mine has been made, the fire boss shall come out of the mine and make a report in report book of all dangerous conditions found, which report must be read by the mine foreman before any men are allowed to enter the mine. The fire boss shall remain at mouth of mine, or some convenient place, until all the men have entered the mine, instructing each man as to the condition of his working place.

The fire boss must make an inspection at least once a week of all old or abandoned parts of the mine and report condition of same in report book.

10. The mine foremen shall familiarize themselves with the mining laws of the Territory, and shall comply with the requirements thereof by discharging every duty imposed upon them by laws and by the rules of the corporation.

11. They shall visit each working face at least once every week and direct the miners and all other employees in their work, and see that his instructions are complied with. They shall direct the miners to securely prop their working places and see that break throughs are driven at proper distances. They shall see that the ventilation of the mine is kept in good condition and that all dangerous conditions are removed as soon as possible. They shall have absolute authority over all underground employees, and see that all the rules and regulations are carefully carried out.

12. All employees shall use every precaution to prevent accidents in or about the mine; they shall not work in an unsafe place when timber would remedy the danger. If timber is not at hand they must stop work and report the fact to the mine foreman. The miner shall each day, before beginning work, examine his working place and take down all dangerous rock, or otherwise make it safe by properly timbering, and shall carefully sprag the coal when undermining.

13. No miner or other employee shall be permitted to burn kerosene, black-strap, or machine oil in his lamp.

14. It shall be the duty of every miner to ascertain from the fire boss the condition of his working place before entering the mine.

15. It shall be the duty of the wireman to see that all the employees are out of the mine and the power cut off the mine before he enters the mine to connect up shooting circuits, and to see that all shooting circuits are disconnected from power lines after shots have been fired; also to see that shooting lines are kept up in good shape and that miners are furnished wire for extensions and to see that all wire is removed from pillars and abandoned places.

He shall make daily report in record book of the cutting out and cutting in of shooting circuits.

SHOOTING REGULATIONS.

The following regulations for drilling and charging shot holes and mining and cutting the coal will hereafter be in effect at Dawson mines, and must be strictly carried out by all parties:

1. The mining or cutting must extend at least 6 inches beyond back of holes in all cases.

2. All holes must be at least 2½ feet in length; no shorter holes will be fired.

3. All coal dust must be extracted from holes before they are charged.

4. No holes must be charged with more than five sticks of powder.

5. Standing holes or parts of standing holes must not be recharged.

6. The hole in a tight corner must be at least 1 foot from rib at back end of hole.

7. In solid faces holes must not be more than 6 feet apart horizontally and not less than two such holes shall be fired.

8. The object of these rules is to prevent and remove the danger from blown out or windy shots, and it shall be the duty of the shot inspectors, in addition to the above rules, to refuse to shoot any holes which in their judgment may be dangerous, whether the circumstances are fully covered by the rules or not.

9. When giant powder is used in mines, not more than 15 sticks must be taken in the mine for any one working place for any one shift, and in no place must there be more than 20 sticks at any one time.

10. No giant powder must be taken into the mine in a frozen condition, and any attempt to thaw it out in the mine is strictly prohibited. Miners must have their powder supplied to them at the proper temperature to be exploded. Miners are prohibited from accepting, and powder men forbidden from giving out, powder in a frozen condition, and shot inspectors are hereby made responsible for the strict carrying out of this rule.

11. Giant caps must not be kept in the mine; the shot inspectors will give them out to the men, one for each shot, as they are needed and personally supervise the placing of them in the hole with the powder. Under no conditions must they be kept with the giant powder.

12. The powder man will not give giant powder to any person not supplied with a canvas bag in which to carry it.

13. Mine foremen, shot inspectors, powder men, and all others connected with the handling of giant powder going into the mine must personally see that the above rules are carried out as far as their supervision in the matter extends.

14. No intemperate man or habitual smoker must be employed as powder man, and when on duty at the powder magazine the powder man must not have on or about his person in the magazine any pipe, tobacco in any form, or matches, nor any tools or materials from which a spark might be emitted or a light created.

15. When powder is being given out to the miners no one but the powder man must be inside the magazine, or no person must be allowed around the door of the magazine with a light or while smoking.

16. The presence of women or children or any person under 18 years of age in or around the magazine is prohibited at all times, also their employment in handling powder, and no powder shall be given out to them.

ST. LOUIS, ROCKY MOUNTAIN AND PACIFIC COMPANY'S MINES.

The St. Louis, Rocky Mountain and Pacific Company ranks first among the coal operators of New Mexico in production of coal during the past fiscal year, the combined output of the mines at the camps of Van Houten and Koehler amounting to 1,199,634 tons. It also ranks first in area of coal lands under one ownership in New Mexico.

During the past year the life of the mines has been much lengthened by the development of another coal seam hitherto neglected, if known at all. This, the fourth workable seam developed in the field, is known to extend under a large proportion of the company's coal lands.

An approximate section of the coal measures, including the recently developed seam, which has been named the Van Houten, is as follows:

A band of reddish sandstone marks the base of the coal measures. Above this is found: Shale and shaly sandstones, 5 to 20 feet; coal, 1 to 2 feet; shales and sandstones, 5 to 15 feet; the Raton coal seam, 4 to 14 feet thick; 455 feet of sandstones and shales; the Tin Pan coal seam, 4 to 6 feet thick; 255 feet of sandstones and shales; the Van Houten coal seam, 8 feet; 100 feet of sandstones and shales; the Potato Canyon coal seam, with 5 feet 6 inches of clean coal.

Development work on the Potato Canyon coal seam during the past year has proven it to be much better than quoted in these reports heretofore. Instead of 2 feet 6 inches to 5 feet in thickness the development has shown the seam to be 5 feet 6 inches clean coal. The coal produced from each of the seams is an excellent coking and steam coal and a good domestic fuel.

The mines operated during the past year at Van Houten and Koehler are in the Raton seam, which ranges from 4 to 14 feet thick in various parts of the workings. System of mining: Double entry, room and pillar, robbing on retreat. Distance apart of cross entries, 800 feet. Dimensions of principal openings: Main entries, 10 by 6

feet; main air courses, 10 by 6 feet; size of main entry pillars before rooms are turned off cross entries (formerly 100 feet), increased to 300 feet under heavier cover; size of pillars between entries and air courses, 50 feet; cross-entry pillars, 40 feet; length of rooms, 400 feet; distance of room centers, from 45 to 50 feet; average width of rooms, 22 feet; length of room necks, 21 feet; width of room necks, 10 feet; average size of room pillars, 25 feet.

For humidifying and for protection against fire, pipe lines have been installed in the mines, with 2-inch pipe in each pair of cross entries and 1-inch pipe through crosscuts convenient to rooms. The water is delivered under 50 pounds pressure.

Although little fire damp has ever been found in the Van Houten or Koehler mines of this company, precautions are taken against any increase, and fire bosses are employed who daily examine each working place and the mines throughout before men are allowed to enter for work. Record books are kept which describe conditions found.

Shot firers, paid by the company, carefully inspect all holes drilled, and if a hole is improperly placed the shot firer condemns it and it is not loaded until defects are remedied. The shot firers load all holes; hence they can adjust the charges for their own safety and to avoid dust explosions. Shots are fired once each day, when all persons are out of the mine except shot firers. Only permissible explosives are used and the holes are tamped with clay.

A competent mine inspector is constantly employed to see that safe conditions are maintained within the mines and that proper ventilation is maintained at all working places and where necessary throughout the mines. Great care is exercised in the protection of employees, and the percentage of fatalities to number of men employed during the past three years compares favorably with the records of the best appointed coal mines of the world.

VAN HOUTEN MINE.

The Van Houten mine, in secs. 34 and 35, T. 30 N., R. 22 E., New Mexico principal base and meridian, is on a branch of the Atchison, Topeka and Santa Fe Railroad, which connects with the main line at Hebron, N. Mex., and with the St. Louis, Rocky Mountain and Pacific Railway at Preston, N. Mex.

The mine comprises five openings, known as Nos. 1, 2, 4, 5, and 6.

The coal from Nos. 1, 2, 4, and 6 openings is dumped over the same tipple; another tipple serves No. 5 mine, which is about $1\frac{1}{4}$ miles from the other mines. This mine is on the Raton seam, here 4 to 15 feet thick and dipping $1\frac{1}{2}$ per cent northwest. Length of main entry No. 1 mine, pit mouth to face, 2,850 feet; length of longest lateral entries from main entry No. 1 mine, first and second left entries, 3,400 feet each; other entries have attained lengths of 1,000 to 1,500. Length of main entry No. 2 mine, 900 feet; length of two longest entries from main entry to face, 3,100 feet. Length of main entry No. 4 mine, 5,100 feet; fifth and sixth right entries are 2,700 feet in length, with several other comparatively long entries. Length of main entry No. 5 mine, 1,200 feet; third and fourth right entries, 1,500 feet each, with several other long entries. Length of main entry No. 6 mine, 900 feet; third and fourth right entries, 1,800 feet.

The plant is operated by steam and electricity: Boiler capacity, 700 horsepower; two steam engines, combined capacity 550 horsepower. Electric machinery: One Jeffrey generator, 150 kilowatts; two Card generators, 150 kilowatts each; total capacity, 400 kilowatts; pressure, 500 volts; current, 700 amperes.

The loaded mine cars are gathered by mules and hauled from the mine partings to the tippie by four 15-ton Westinghouse motors and one 10-ton Morgan-Gardner motor, which have a total haulage capacity of 4,000 tons a day. The mines are ventilated by three exhaust fans—one Clifford fan, 13½ feet diameter by 7 feet wide; one Guibal fan, 20 feet diameter by 6 feet wide, and one of home construction, 6 feet diameter by 2 feet wide. The mines were operated 252 days during the fiscal year; total output, 659,324 tons; amount used in operating the mine, 3,775 tons; amount of unwashed slack and coal shipped to coke ovens at Gardiner, N. Mex., 101,320 tons; net product of coal shipped to market, 552,974 tons; average price per ton at the mine, \$1.17; total value of coal shipped to market, \$646,979.58. Increase of gross production over preceding fiscal year, 184,321.21 tons. In addition to the coal sold, 45,079 tons of coke was produced, having a value of \$2.99 per ton at the ovens; total value, \$266,077.11, or a total value of coal and coke produced, \$913,056.69.

In the earlier part of the year 254,575 pounds of black powder were used; later the use of black powder was prohibited, and 23,825 pounds of monobel were used. An average of 324 miners, 99 company men, and 6 boys were employed underground, and 34 men and 3 boys outside; a total of 466 persons employed immediately in operation of the mines. Practically all nationalities, except Chinese, were represented. As shown by signatures to vouchers 95 per cent of the employees could write. The coal is sold in Arizona, Texas, Kansas, Colorado, Oklahoma, New Mexico, and Mexico, and the coke is shipped to the smelters of Arizona and Mexico. The following railroads also draw on these mines for fuel supplies: Atchison, Topeka and Santa Fe Railway; Colorado and Southern Railroad; El Paso and Southwestern Railroad; Chicago, Rock Island and Pacific; and St. Louis, Rocky Mountain and Pacific Railroad.

RECORD OF INSPECTION.

November 19, 1909.—Inspected No. 2 mine, in which the pillars are being pulled. Found mine well timbered to give warning of falls of roof as pillars are pulled, and well ventilated to ends of workings. Investigated conditions at place where Fred Tori was killed in No. 54 pillar, between rooms 54 and 55, in third right entry. Found he had his place well timbered and extra timbers lying in room near at hand. Found that he had gone into his place late in the morning and began mining under a big piece of overhanging coal, weighing about 1,800 pounds, which was loose, without sounding it. The piece of coal should have been pulled down, as it was loosened by previous shot, and his accidental death was result of his own carelessness.

October 15, 1909.—Inspected No. 4 mine. Air intake main entry, $a52.25$ square feet $\times v480=25,080$ cubic feet per minute; dry-bulb thermometer, 47°; wet-bulb thermometer, 38°; barometer, 23.6 inches; relative humidity, 47 per cent. Air intake through No. 6 mine into No. 4 mine; observation made after air passed No. 6 mine, $a35$ square feet (10 by 3.5 feet) $\times v710=24,850$ cubic feet per minute; dry-bulb thermometer, 50°; wet-bulb thermometer, 48°; barometer, 23.35 inches; relative humidity, 88 per cent. Air intake through No. 3 room from outside, 11,103 cubic feet per minute; dry-bulb thermometer, 49°; wet-bulb thermometer, 39°; barometer, 23.4 inches; relative humidity, 44 per cent. Air return to fan, $a50,375$ square feet $\times v1,320=74,415$ cubic feet per minute; dry-

bulb thermometer, 52°; wet-bulb thermometer, 50°; barometer, 23.32 inches; relative humidity, 89 per cent. Fan (exhaust), home construction, 25 feet diameter by 8 feet wide; 39 revolutions per minute. Persons underground, 100 miners, 14 company men, and 1 boy, a total of 115 persons; also 17 mules. Mine sprinkled by hose from pipe-line system. Found mine in good condition.

November 20, 1909.—Investigated conditions at mines Nos. 4 and 5. Found that every reasonable effort is made to safeguard men employed.

May 20, 1910.—Inspected No. 4 mine. Air intake from three sources, 61,685 cubic feet per minute. Air return to fan, measured outside of overcast, 63,525 cubic feet per minute. Number of persons underground, 117 miners, 27 company men, 1 boy; total, 145; also 12 mules. Found mine in good condition.

February 17, 1910.—Inspected No. 5 mine. Total air intake, 32,100 cubic feet per minute; dry-bulb thermometer, 26°; wet-bulb thermometer, 29°; barometer, 23.25 inches. Persons underground, 82 miners, 8 company men, 1 boy; total, 91; also 7 mules. Air return to fan, 35,600 cubic feet per minute; dry-bulb thermometer, 46°; wet-bulb thermometer, 44°; barometer, 23.15 inches; relative humidity, 87 per cent. Found mine in good condition, but dry. All shots fired by shot firers, who examine same before igniting.

October 16, 1909.—Inspected No. 6 mine. Air intake main entry, $a60$ square feet (10 by 6 feet) $\times v350=21,000$ cubic feet per minute; dry-bulb thermometer, 61°; wet-bulb thermometer, 45°; barometer, 23.35 inches; relative humidity, 42 per cent. Air intake through first left entry from air shaft, $a46.75$ square feet $\times v70=3,272$ cubic feet per minute; dry-bulb thermometer, 56°; wet-bulb thermometer, 45°; barometer, 23.4 inches; relative humidity, 56 per cent. This air goes to exhaust fan at No. 4 mine and is quoted in report on No. 4 mine as air from No. 6 mine. Underground on No. 6 mine are 75 miners, 5 drivers, 1 track layer, 1 boy, and 1 pit boss; total, 83; also 8 mules. Total intake of air 24,272 cubic feet per minute; air well distributed.

KOEHLER MINE.

The Koehler mine is situated in Prairie Crow Canyon, about 22 miles southwest of Raton, in T. 29 N., R. 22 E., New Mexico principal base and meridian. The Raton coal seam is operated through three openings, known as Nos. 1, 2, and 3, dumping over same tippie; thickness of coal seam, from 4 to 11 feet; dip of coal seam, 1.5 per cent; system of working, double entry, room and pillar. The mine is on the St. Louis, Rocky Mountain and Pacific Railroad, which has direct connections with the Atchison, Topeka and Santa Fe Railroad; El Paso and Southwestern Railway; and Colorado and Southern Railway, giving various outlets for the product of the mine.

Length of main entry No. 1 mine, 3,700 feet; longest entries, third and fourth left, 1,700 feet, with several other entries more than 1,000 feet in length. Length of main entry No. 2 mine, from mouth of mine, in Prairie Crow Canyon, through the hill into Ashenfelter Canyon, 3,100 feet. This entry will be extended into the field beyond Ashenfelter Canyon. The first and second east entries are over 2,600 feet in length. Length of main entry No. 3 mine, 1,400 feet; first and second east entries, 3,100 feet.

No. 1 mine is ventilated by a Clifford fan, 13½ feet diameter by 7 feet wide, exhausting but reversible. No. 2 and No. 3 mines are ventilated by fans of home construction, each 6 feet diameter by 4 feet wide, exhausting but reversible.

The plant is operated by steam and electricity. The boiler plant has a capacity of 1,500 horsepower, having been increased during the past year by the addition of two water-tube boilers, 528 horsepower. One 350-kilowatt direct-connected engine unit was added during the year, making total capacity of electric equipment 650 kilowatts. Westinghouse electric machinery is used, generating three-phase alter-

nating current, 6,600 volts, 32 amperes; transformed to direct current, 550 volts, 700 amperes. Five 15-ton motors, capacity 3,000 tons per day, are used to haul the coal from the partings in the mine to the tippie. Pneumo-electric punching machines are used in some of the entries, but no record was kept of amount of coal mined by machine.

The mines were operated 246 days during the fiscal year; number of miners employed, 275; number of company men underground, 80; number of boys underground, 6; men employed outside, 33; boys, 3; total number of persons employed underground and outside at the mines, 397. Gross production, 540,310 tons; amount used in operating the mines, 7,502 tons; unwashed coal and slack sent to washery and coke ovens, 178,498 tons; net product shipped to market, 341,428 tons; average price per ton for coal shipped to market, \$1.17; total value of coal shipped to market, \$399,470.76. Coke made, 88,989 tons; value per ton at the ovens at Koehler, N. Mex., \$2.99; total value of coke, \$266,077.11; total value of coal and coke produced from these mines during fiscal year, \$666,547.87. The product was shipped via the St. Louis, Rocky Mountain & Pacific Railroad and connecting lines. The coal is sold in Arizona, Texas, Kansas, Colorado, Oklahoma, New Mexico, and to the smelters of the Southwest and Mexico, and is used for fuel by the following named railroads: Atchison, Topeka and Santa Fe Railroad; Colorado and Southern Railroad; El Paso and Southwestern Railroad; Chicago, Rock Island and Pacific Railroad; and St. Louis, Rocky Mountain and Pacific Railroad.

The camp of Koehler, like the neighboring camp of Van Houten, has every accommodation and comfort usually found in towns of similar size. Good water and electric lights at all the houses, together with cheap rents, offer inducements to laborers or miners with families, while good boarding houses for the unmarried men are numerous.

RECORD OF INSPECTION.

October 14, 1909.—Mine No. 1: Air intake, $a60$ square feet $\times v1,100=66,600$ cubic feet per minute; dry-bulb thermometer, 70° ; wet-bulb thermometer, 45° ; barometer, 23.42 inches; relative humidity, 12 per cent. Observation at last crosscut between main and back entry, 2,800 feet from mouth of mine; air traveling $a37.5$ square feet (7 by 5.5 feet) $\times v175=6,562$ cubic feet per minute; dry-bulb thermometer, 55° ; wet-bulb thermometer, 54° ; barometer, 23.4 inches; relative humidity, 95 per cent. This air comes direct from the mouth of the mine, but passes over naturally wet areas in the main entry. Fan (exhaust), 82 revolutions per minute. Air return to fan, $a57$ square feet (9.5 by 6 feet) $\times v1,360=77,520$ cubic feet per minute; dry-bulb thermometer, 52° ; wet-bulb thermometer, 49° ; barometer, 23.4 inches; relative humidity, 83 per cent. Persons underground, 119 miners, 27 company men, 5 boys; total, 151; also 13 mules.

February 16, 1910.—Mine No. 1: Air intake, 51,600 cubic feet per minute; dry-bulb thermometer, 45° ; wet-bulb thermometer, 4° ; barometer, 23.3 inches; relative humidity, 88 per cent. Persons underground, 120 miners, 14 company men, 4 boys; also 11 mules. Air return to fan, 55,860 cubic feet per minute; dry-bulb thermometer, 45° ; wet-bulb thermometer, 45° ; barometer, 23.27 inches; relative humidity, 100 per cent. Found mine in good condition.

May 17, 1910.—Mine No. 1: Air intake, 35,000 cubic feet per minute through main entry; air intake first and second east entries, 13,020 cubic feet per minute; total intake, 48,020 cubic feet per minute. Persons underground, 95 miners, 2 company men, and 4 boys; total, 111; also 9 mules. Fan (exhaust), 76 revolutions per minute. Air return to fan, 58,500 cubic feet per minute. Found mine in good condition; no gas. Examined fire-boss's record book; no gas reported.

June 22, 1910.—Mine No. 1: Examined fire boss's report book; found that records of conditions were carefully attended to. No gas found since last inspection. Air intake through two sources, 56,320 cubic feet per minute. Miners, 110; company men, 16; boys, 4; total number of persons underground, 130; also 10 mules. Air return to fan, 54,600 cubic feet per minute; depreciation of volume due to lower temperature. Fan (exhaust), 80 revolutions per minute. Found mine in good condition; air well distributed; no gas.

October 14, 1909.—Mine No. 2: Air intake, main entry, $460 \text{ square feet} \times v869=51,600$ cubic feet per minute; dry-bulb thermometer, 56° ; wet-bulb thermometer, 40° ; barometer, 23.5 inches; relative humidity, 87 per cent; time, 7 a. m. standard, 7.30 a. m. mine. Air traveling at last crosscut between first and second east entries, 2,800 feet from main entry, $40.5 \text{ square feet} \times v60=2,430$ cubic feet per minute; dry-bulb thermometer, 54° ; wet-bulb thermometer, 52° ; barometer, 23.5 inches; relative humidity, 89 per cent; time, 9 a. m. Air return to fan, $451 \text{ square feet} \times v980=50,780$ cubic feet per minute; dry-bulb thermometer, 53° ; wet-bulb thermometer, 49° ; barometer, 23.5 inches; relative humidity, 78 per cent. Fan (exhaust), home construction, 6 feet diameter by 4 feet wide, 220 revolutions per minute; time, 9.25 a. m. Natural wet areas in mine; dry areas sprinkled by hose from pipe-line system. There are 120 miners, 4 company men, 11 drivers, and 3 boys, a total of 138 persons, underground; also 11 mules. Mine in good condition.

May 18, 1910.—Mine No. 2: Examined fire boss's report book. Found each record of return air to fan exactly like preceding record; not probable that exactly same measurement would be found each time; indicating that record is written without actual measurement. Bad method; called attention to it. Air intake main entry, 38,600 cubic feet per minute. There were underground 105 miners, 12 company men, 2 boys; total, 119; also 8 mules. Fan (exhaust), 200 revolutions per minute. Air return to fan, 38,340 cubic feet per minute. Found mine in good condition. Shot firers examine all holes, and load and shoot them if properly placed, in all mines operated by this company.

June 23, 1910.—Mine No. 2: Examined fire boss's report book; found proper attention given to records; no gas found since my last visit of inspection. Air intake, through two sources, 45,900 cubic feet per minute. Air return to fan, 43,700 cubic feet per minute; lower temperature of return decreases volume. Fan (exhaust), 198 revolutions per minute. Miners, 120; company men, 18; boys, 2; total, 140 underground; also 10 mules. Found mine in good condition; air well distributed, no gas.

October 14, 1909.—Mine No. 3: Air intake $459 \text{ square feet} \times v800=17,700$ cubic feet per minute; dry-bulb thermometer, 58° ; wet-bulb thermometer, 44° ; barometer, 23.56 inches; relative humidity, 47 per cent. Air return to fan, $475 \text{ square feet (10 by 7.5 feet)} \times v220=16,500$ cubic feet per minute; dry-bulb thermometer, 54° ; wet-bulb thermometer, 51° ; barometer, 23.55 inches; relative humidity, 83 per cent. Fan (force), 6 feet diameter, 230 revolutions per minute. There were 40 miners, 5 company men, and 1 boy, a total of 46 persons, and 3 mules underground. Mine in good condition.

May 19, 1910.—Mine No. 3: Fan (force), 225 revolutions per minute. Air intake, 17,700 cubic feet per minute. Miners, 45; company men, 6; boys, 1; total number of persons underground, 52; also 4 mules. Air return to outside, through main entry, 19,680 cubic feet per minute. Telephone or speaking tube not installed; operators are driving new entry to outside in which it is planned to install the telephone system. Recommend that sufficient time be allowed to complete the entry. Mine in good condition.

June 24, 1910.—Mine No. 3: Air intake measured at 350 feet inside of fan, in fan entry, 17,346 cubic feet per minute. Fan (force), 235 revolutions per minute. Air return, measured 100 feet from mouth of main entry, 17,479 cubic feet per minute. Miners, 46; company men, 15; boys, 1; total, 62 persons underground. Found mine in good condition.

BRILLIANT MINE.

The Brilliant mine is in the NW. $\frac{1}{4}$ sec. 8, T. 31 N., R. 23 E., New Mexico principal base and meridian. This mine, which produces both an excellent domestic coal and a good coking coal, is located on a 4 to 6 foot seam locally known as the "Tin Pan," about 460 feet higher in the coal measures than the Raton seam. The mine is owned

by the St. Louis, Rocky Mountain and Pacific Company. Extensive developments were made and electric power installed just prior to the business depression in 1907. Lack of demand caused a suspension of operations early in 1908, and, although the demand has increased, the development and increased output of the Van Houten and Koehler mines rendered it unnecessary to work the Brilliant mine until May, 1910, when the company began to clean the main entries. The mine was expected to be producing again by August, 1910.

DUTCHMAN MINE.

The Dutchman mine, in secs. 16 and 17, T. 31 N., R. 23 E., New Mexico principal base and meridian, was fully described in the annual report for 1906. The mine has not been operated for shipping purposes since October 5, 1906, when work was suspended on account of an explosion. Since that time, however, a working shaft has been sunk about a mile from the original opening and everything put in readiness for a large production when the market demands it. The coal seam is 7 feet thick at the point where it is intersected by the shaft. The mine is owned by the St. Louis, Rocky Mountain and Pacific Company.

SUGARITE MINE.

The Sugarite mine is located on the west side of Chicorica Creek and on the east slope of Bartlett mesa, about $3\frac{1}{4}$ miles directly north-east of Raton. The property is owned by the St. Louis, Rocky Mountain and Pacific Company, and was operated under lease by the Raton Fuel Company until February, 1910, when possession of the property reverted to the owners, since which date it has not been operated. The coal was hauled by wagon to the town of Raton, N. Mex., where it was used for domestic and steam purposes. The mine is upon the Raton coal seam; the product is a good grade of bituminous coal; thickness of vein, 5 feet, nearly horizontal; system of working, drift, cross entry, room and pillar; length of main drift, 1,200 feet.

The former management refused to give any data to this office, and the figures below given are estimated. Average number of men employed underground, 16; number of boys underground, 1; number of men outside, 1; natural ventilation; number of days mine was operated during fiscal year, 180; coal produced, 10,100 tons; estimated value of output at mine, \$17,675.

RECORD OF INSPECTION.

October 4, 1909.—Reports have been current in the newspapers that men were overcome by foul air in the Sugarite mine. Inspected mine. Air at intake erratic and baffling, reversing with direction of wind outside; found air good at working faces. Found main intake air course partly blocked by falls of rock, and aperture at bottom of air shaft similarly blocked. Instructed that air courses be put in proper condition. No telephone nor speaking tube in mine, as prescribed by law. Instructed that either one be installed. Investigated reports of men being overcome by foul air; found that men probably had been scared without good cause, as their lights had continued to burn as usual. In their hurried exit a young man had fallen over a car and his light went out. A. Hellas, contractor in charge, went in after him and brought him out uninjured. Mr. Hellas's lamp burned all right, and he said there was no occasion for the reports. Found mine air good at working faces.

November 22, 1909.—Inspected Sugarite mine. Found air courses cleared of obstruction and telephone installed as instructed on last visit of inspection. Air intake 230 square feet $\times$ 140=4,200 cubic feet per minute. Air current depending on direction of wind outside, reversing the intake at times. Coal pick mined; powder seldom used. Twelve miners, 3 drivers, and 1 boy are employed underground. Found mine in good condition.

INSTRUCTIONS TO MINERS.

The following is a copy of instructions to miners issued by the St. Louis, Rocky Mountain and Pacific Company:

1. No miner is allowed to enter any of the mines of this company without permission of the fire boss or pit boss, and at no time shall he attempt to enter the mine if mine gate is closed.

2. No miner, while in or about the mines, is allowed to have in his possession any powder, fuse, caps, or other explosives.

3. No miner shall enter any working place where a danger board has been put up.

4. In mining, the miner shall mine or cut his coal, and no hole shall be drilled beyond such mining or cutting.

The miner must see that his drill at all times is of sufficient size to make a hole large enough to admit the safety cartridges.

5. When leaving his room the miner must leave in front of each hole a sufficient number of dummy cartridges filled with clay to properly fill the hole. Clay for that purpose will be delivered by the company at convenient places in the mine.

6. The miner will be charged by the company with the amount of powder, fuse, and caps actually used in his working place by the shot firer.

7. The shot firers are instructed not to fire any holes which do not conform with these regulations.

These regulations are made to insure safety of life and property, and must be strictly complied with.

The following instructions are also issued:

INSTRUCTIONS TO SHOT FIRERS.

1. All shot firers shall report to the pit boss of the mine to which they are assigned and get his instructions before entering such mine.

2. Upon entering the mine the shot firers must close and lock the mine gates and see that they remain so as long as they are in the mine.

3. The shot firers shall never charge or load any hole which, in his opinion, would make an unsafe shot, neither shall he fire any hole which has been charged by the miner.

4. If a miner has left an insufficient number of dummy cartridges to properly fill the hole, or if the cartridges are filled with any other substance than clay, or if the hole drilled is too small to properly admit the safety cartridges, or if the hole is not properly placed and drilled, so as to make a safe shot, the shot firer shall not attempt to charge or fire such hole.

5. The shot firer shall only use such explosives as are furnished him by the company, and shall keep an accurate account in a book furnished him by the company of the amount of powder, caps, and fuse actually used by him in each working place.

6. After the shots in a working place have been fired, the shot firer shall examine said working place as quickly as possible and see whether the shooting has left the working place in an unsafe condition, and if a shot has missed fire, or if a working place should be in an unsafe condition, shot firer shall not return to face, but shall put up a danger board, so that no one can enter the place without seeing same. He shall also make report to the fire boss when he comes on his shift. And if shot still hangs fire when it is time for the miners to be allowed to enter the mine fire boss shall not allow party who works in that place to enter same. Shot firers to take care of conditions next evening when they come on their shift.

7. No explosives, caps, or fuse shall be left in the mine by the shot firers.

8. Shot firers shall work in pairs as much as possible, and if it is necessary to work alone they must keep one another advised as to where they expect to work.

9. Before leaving the mine shot firer shall make out report to pit boss, giving the entry and room number of all holes refused, or unsafe places; also the reason for not firing. This report shall be left where mine boss can examine same each morning before starting in on his regular duties.

These regulations are made to insure safety of life and property and must be strictly complied with.

YANKEE FUEL COMPANY'S MINES.

YANKEE MINE.

The Yankee mine is in sec. 1, T. 31 N., R. 24 E., New Mexico principal base and meridian. The thickness of coal seam is 5 feet 6 inches; dip, N. 1° 30' E.; character of coal, bituminous and coking. The mine is opened by four main entries, numbered 1, 2, 3, and 4; system of working, double entry, room and pillar. Total net output for the year, 17,748 tons, a decrease of 13,886.23 tons from the preceding fiscal year; value of product at the mine, at \$1.20 per ton, \$27,400; number of days mine was operated, 160; average number of men employed underground, 40; average number of men employed outside, 9.

Internal difficulties of the company have retarded the operation of the property during the past two years. A detailed description of the property was published in former reports of this office.

RECORD OF INSPECTION.

October 5, 1909.—Mine operated intermittently; last operation nine days ago; 15 miners on pay roll. Air intake, through three openings, 11,230 cubic feet per minute; no fire in furnace; air good at working faces; found rooms insufficiently timbered; very dangerous roof; instructed Thomas Turner, pit boss, to have rooms properly timbered before men are allowed to work in them.

June 18, 1910.—Air intake can not be measured with any degree of accuracy on account of intakes through caved ground; air return to furnace, 17,430 cubic feet per minute; air well distributed. There were 23 miners and 5 company men, a total of 28 persons, underground; also 9 mules; found miners lax about setting timbers where pillars are being drawn; gave necessary instructions; fire damp has never yet been found in the mines.

LLEWELLYN MINE.

The Llewellyn mine is located in secs. 17, 18, and 20, T. 31 N., R. 26 E., New Mexico principal base and meridian, about 12 miles northeast from Raton, N. Mex. It lies about 200 feet beneath the lava sheet which constitutes the top of Johnson Mesa. The coal seam outcrops in the several canyons that have eroded along the sides of the mesa. The mine was not operated during the past fiscal year. It is owned by the Yankee Fuel Company. The coal is a good quality of bituminous; thickness of vein, 7½ feet, nearly horizontal; system of working, drift, single entry, room and pillar; length of main drift entry, 550 feet; system of ventilation, air shaft.

SPERRY MINE.

The Sperry mine lies in sec. 5, T. 31 N., R. 25 E., New Mexico principal base and meridian, about 11 miles from Raton, N. Mex. It is opened by a drift entry, about 400 feet in length. For several years prior to September, 1906, this mine was operated by Elmer Sperry, and the coal was hauled by teams to Raton and sold for domestic purposes. The mine is owned by the Yankee Fuel Company. It was not operated during the past fiscal year.

HONEYFIELD MINE.

The Honeyfield mine is located in sec. 2, T. 31 N., R. 24 E., New Mexico principal base and meridian, about 9 miles northeast of Raton and 1 mile from Yankee. The coal is a good quality of bituminous; thickness of coal seam, 5 feet, nearly horizontal; system of working, drift, single entry, room and pillar; length of main drift entry, 350 feet. This mine was not operated during the past year. It is owned by M. R. Mendelsohn, of Raton, N. Mex.

TURNER MINE.

The Turner mine is located in the E. $\frac{1}{4}$ NE. $\frac{1}{4}$ and E. $\frac{1}{4}$ SE. $\frac{1}{4}$ sec. 18, T. 31 N., R. 25 E., New Mexico principal base and meridian, about 12 miles northeast from Raton. It is on a coal seam supposed to lie about 60 feet below the Llewellyn seam; thickness of seam, 4 $\frac{1}{2}$ feet; kind of coal, bituminous; system of working, drift, room and pillar; ventilation by air shaft. This mine was not operated during the past fiscal year.

LINCOLN COUNTY.

Several prospect slopes and shafts have been sunk in the coal measures of Lincoln County during the past two years in attempts to open a mine that could ship coal at a profit. These efforts have had but indifferent results. The area in which the coal measures lie was first folded and faulted, afterwards much eroded, and still later intersected by igneous dikes. At a yet later period extrusive flows covered the coal measures and caused the deterioration of the coal wherever exposed by erosion.

The igneous action has reduced the economic value of the coal reserves of this section. There are considerable areas largely underlain with coal, as between Three Rivers station and Walnut station on the El Paso and Southwestern Railroad, a distance of 30 miles; yet numerous drill holes, shafts, and slopes, sunk to exploit the coal measures, have shown that the coal has been more or less coked, either by intrusive sheets or sills below or extrusive flows above it. In a few instances isolated patches of marketable coal have been found, but the probability of a large production from the coal fields of this county is very remote.

OLD ABE MINE.

The Old Abe mine is located in the NW. $\frac{1}{4}$ sec. 5, T. 7 S., R. 13 E., New Mexico principal base and meridian. Thickness of coal seam, 2 feet 6 inches to 4 feet; angle of dip, 18°; direction of dip, S. 89° 40' W. Opened by two slopes 400 feet and 250 feet, respectively, in depth; entries, 250 to 300 feet in length. The mine is owned by the Old Abe Company, which also operates a gold mine at White Oaks, about 3 $\frac{1}{2}$ miles distant. John Y. Hewitt is general manager and A. N. Price superintendent of the coal mine. The number of men employed underground was 4; number of men outside, 1; nationality of employees, American, all of whom could read and write; number of days mine was operated during the year, 300; production

of mine, 2,065.65 tons; estimated value of output, at \$3 per ton, \$6,196.97. The mine is operated principally to supply fuel to the Old Abe gold mine and mill and to the town of White Oaks, N. Mex. Shipments are also made by wagon to Carrizosa, about 14 miles distant, and sold there for domestic purposes.

RECORD OF INSPECTION.

May 7, 1910.—Air intake, through main slope, erratic, baffling, and reversing; no constant register on anemometer, but air very good throughout mine. A. N. Price, superintendent, in charge; 3 men employed underground. Found one miner drilling dangerous holes to be shot off the solid; stumps of holes 21 inches and 30 inches left from last shift of work. Gave necessary instructions. Mine otherwise in good condition.

GRAY MINE.

The Gray coal mine is located in T. 9 S., R. 14 E., New Mexico principal base and meridian. The mine was first opened about twenty-five years ago to procure fuel for Fort Stanton. A slope was sunk to a depth of 250 feet, but followed a line of disturbance of the strata, and but little marketable coal was extracted, the mine being closed and the old slope allowed to cave in and fill with débris washed from the surface. In 1901 the Linderman Coal Company, under the management of J. J. Blow, sunk a new slope to a depth of 450 feet, but this slope followed the same line of disturbance of the strata and but little coal was found, operation being soon suspended. During the past fiscal year Mr. S. T. Gray sunk a new slope to a depth of 250 feet, opening a promising seam of coal. Thickness of coal, 3 feet 6 inches; angle of dip, about 8°. Statistical blanks sent to the operator for data for this report were not returned. The following figures are estimated: Number of miners employed, 2; men outside, 1; number of days mine was operated, 60; total product, 250 tons; value of product at the mine, \$3 per ton; total value, \$750. The coal is hoisted to the surface by a horse whim.

RECORD OF INSPECTION.

May 6, 1910.—Found slope entry 250 feet in depth. Found a furnace shaft at a depth of about 200 feet in the slope, but about 12 feet to left of slope and connected by a crosscut. No second opening, as required by law, and no speaking tube or telephone to bottom of mine. Gave necessary instructions.

WILLOW SPRINGS MINE.

The Willow Springs mine lies in sec. 3, T. 8 S., R. 10 E., New Mexico principal base and meridian. It is situated about $3\frac{1}{2}$ miles from Polly station, on the El Paso and Southwestern Railroad, the nearest railroad point. The mine has not been operated since December 14, 1908. Thickness of coal seam, $2\frac{1}{2}$ to 5 feet; dip of seam, 16° SE.; depth of main slope, 320 feet; horsepower whim used for hoisting. The coal was shipped by wagon to the town of Carrizosa, N. Mex., 7 miles distant, where it was sold for domestic use.

CONNER AND SMITH MINE.

This property lies in T. 8 S., R. 10 E., New Mexico principal base and meridian, about 8 miles east of Carrizosa, N. Mex. The mine is in the prospective stage. The coal seam has a thickness of 4 feet $10\frac{1}{2}$ inches, with 4 bands of shale included.

RECORD OF INSPECTION.

May 9, 1910.—Inspected mine. Found slope 135 feet deep; no second opening; no speaking tube or telephone. Operation of slope suspended and work being prosecuted upon a shaft 600 feet ahead of slope, which will serve as a second opening when connected. Shaft only 25 feet in depth; has not reached coal seams. Gave necessary instructions to W. A. Conner, one of the owners and operators.

McKINLEY COUNTY.

McKinley County ranks second among the coal-producing counties of New Mexico, credited with 22.40 per cent of the gross production of the Territory. The gross production of this county for the fiscal year was 737,924.75 tons, an increase of 110,548.45 tons over the preceding year. The amount used in operating the mines was 16,874 tons; net product shipped to market, 721,050.75 tons; total value of coal shipped to market, \$1,262,747.31.

The coal is subbituminous and noncoking; it burns freely and does not clinker and is in favor for domestic uses, commanding higher prices for this purpose than the bituminous coals. It is used for steam purposes on the Atchison, Topeka and Santa Fe Railroad and other railroads west of Albuquerque, N. Mex., and for manufacturing and power plants throughout the Southwest.

The competition of the fuel oil of California has restricted the output of the mines of McKinley County. It is probable that if this competition were eliminated the production of coal from McKinley County would be counted by millions of tons per annum.

The mines have been remarkably free from fire damp. Only two instances of gas have been reported during the twenty-five years that the mines have been operated, and in each instance a mere trace of fire damp was found by a single witness. The writer has a standing reward of \$25 for any person who will discover fire damp in any of the mines of the Gallup field or the Carthage field, the gaseous mixture to be in sufficient quantity to be detected upon a Pieler lamp, which will be used in making the test.

VICTOR-AMERICAN FUEL COMPANY'S MINES.

The Victor-American Fuel Company owns nine mines, each of which has been extensively developed, namely, Weaver, Heaton, Navajo, Gallup, Clark, Catalpa, Thatcher, Otero, and Bartlett.

Eight workable coal seams are extensively developed in the various mines of this company. Five coal seams, varying from 4 to 8 feet in thickness, have been developed in the upper coal measures through the Gallup, Weaver, Heaton, Navajo, and Clark mines. Three coal seams of the lower coal measures, ranging in thickness from 3½ to 7 feet, have been developed through the Catalpa, Otero, Thatcher, and Bartlett mines.

The mines operated are provided with systems of pipes for protection against fire; sprayers have been installed in the intake air courses, and the mines are sprinkled at regular intervals; the water system operates under gravity pressure of 100 pounds.

Five Westphalia helmet rescue apparatus, complete with recharging pump, etc., have been supplied during the past year; also invalid stretcher, with pulmotor attached, for bringing injured persons from

the mine, and a separate pulmotor to aid in resuscitating persons where respiration is suspended.

Telephone lines to the extremities of the mines provide means of communication with the engine house, tippie, and offices at the surface.

Shot firers are employed, whose duties are to instruct miners, when necessary, how to place their shot holes; to oversee timbering of working place and look after the general safety of the men; also to inspect all shot holes and ignite shots if properly placed. If the holes are dangerously placed they are condemned, and any person is forbidden to ignite the charges. Shots are fired when all others except shot firers are out of the mines. The company provides clay for tamping, which is kept at convenient places within the mine.

The operator is using every endeavor to safeguard the employees at the mines, has voluntarily made many improvements with that end in view, and is always ready to respond to any suggestion for improving conditions of safety in and about the mines.

Comfortable houses are provided for employees at very reasonable rents. Good water is furnished free. The various camps of the company are kept clean and the sanitary conditions are given careful attention. A hospital, with modern equipment, is located centrally to the operating mines; competent physicians and trained nurses care for the inmates.

Large and commodious schoolhouses are provided by the company. A new schoolhouse was erected by the company at the Weaver mine during the past spring and summer at a cost of \$8,000.

The mines operated by the company during the past year are the Weaver, Heaton, and Navajo. Five coal seams are worked through these mines, designated by consecutive numbers in the order of occurrence from the surface.

WEAVER MINE.

The Weaver mine is located in the SE. $\frac{1}{4}$ sec. 34, T. 16 N., R. 18 W., New Mexico principal base and meridian. The mine is opened by a slope 3,900 feet in length, driven to the dip; dip of seam, 6 per cent; direction N. 40° W.; system of working, double entry, room and pillar; distance apart of cross entries, 450 feet; average height of slope and main entries, 7 feet; average width, 9 feet; average height of cross entries and air courses, 6 feet; average width, 8 feet; average length of room necks, 20 feet; average width of room necks, 10 feet; average length of rooms, 225 feet; average width of rooms, 21 feet; distance apart of room centers, 45 feet. The mine is ventilated by a Capell fan, 12 feet in diameter by 5 feet in width, forcing an average of 50,000 cubic feet of air per minute into the mine; water gage, 1.8 inches.

The coal is hauled by mules from the rooms to the partings inside the mine, thence to the tippie by rope haulage. Steam and electricity both used for power purposes, and electricity for lighting. Voltage of electric current, 250. The power for haulage, fan, deep-well pump, box-car loaders, tippie, blower, and machine shop is furnished by 7 engines, having a combined capacity of 750 horsepower. Pumps are all electrically driven. The hoisting engine has a capacity of 800 horsepower.

Four coal seams are opened in this mine, the workings being in Nos. 2, 3, 3½, and 5 coal seams. The main slope, 3,950 feet in depth, is in the No. 3½ coal seam; the other coal seams are attacked through tunnels driven from the No. 3½ seam across the strata; the principal development heretofore has been in the Nos. 3 and 3½ seams, but in the near future No. 5 seam will become a heavy producer through the Weaver slope.

In the Gallup mine, which adjoins the Weaver mine, a slope has been sunk to a depth of 5,000 feet on No. 5 seam, whose average thickness is 6 feet. Fully 3,000,000 tons had been opened when a fire in the upper levels attacked the slope and operations were suspended. The slope was thoroughly bulkheaded below the fire, walling it off from the developed coal. The fire is now extinguished, and this great body of coal can be mined through the crosscut tunnel from the lower workings of the Weaver mine.

During the year a new fan shaft was sunk, through which the ventilating current is brought into the mine about 2,000 feet inside of mouth of fan drift through which the air formerly entered the mine. By the introduction of the air at the new fan shaft all danger of fire from the burning areas nearer outcrop is averted.

The Weaver mine was operated 261.7 days during the past fiscal year, and 168 miners, 40 company men, and 2 boys, a total of 210 persons, were employed underground; 25 men and 5 boys were employed outside at the mine. The employees included practically all European nationalities, together with negroes, Mexicans, Japanese, and Americans. Gross production, 272,845 tons; amount used in operating the mine, 11,304 tons; net product shipped to market, 261,541 tons; average price per ton at the mine, \$1.75; total value of product shipped, \$457,696.75.

The coal was shipped via the Atchison, Topeka and Santa Fe Railroad and connecting railroad lines to California and Pacific coast markets, and to various points in New Mexico, Arizona, and Texas.

RECORD OF INSPECTION.

October 26, 1909.—Inspected mine. Air intake through main fan entry, 654 square feet (9 by 6 feet) $\times v1,040=56,160$ cubic feet per minute. Fan (force), 142 revolutions per minute; dry-bulb thermometer, 55° ; wet-bulb thermometer, 41° ; barometer, 23.7 inches; relative humidity, 45 per cent. Standing water along intake air course for several hundred feet. Two hundred and five miners, 23 drivers, 10 company men, 3 boys; total 241 persons underground, and 38 mules. Air at return from working shows 85 per cent relative humidity. Air return at mouth of main slope, 660 square feet $\times v270=16,200$ cubic feet per minute. Principal part of air escapes through caved ground after passing the workmen.

January 12, 1910.—Investigated accident whereby Porfidio Garcia and Julian Rodriguez were asphyxiated by smoke from fire in Weaver mine, December 22, 1909. Found that the men were working in the second right entry, nearest entry to surface operated. These men were the first called out by the boss driver, Jack Hamilton. The deceased started out with the other men in this entry, but returned for some wearing apparel. Supposing that every person from this entry had gone out, the mine officials proceeded to call out the men in the entries below. When deceased again tried to come out the fan had been reversed and they were overcome while traveling the return.

January 13, 1910.—Inspected mine. Air intake, 51,300 cubic feet per minute. Fan, 140 revolutions per minute; water gage out of commission on account of exceeding cold, strong ice appearing 2,000 feet down the intake slope; dry-bulb thermometer, 31° ; wet-bulb thermometer, 27° ; barometer, 23.75 inches; relative humidity, 64 per cent. There were 170 miners, 20 drivers, and 10 com-

pamy men underground, also 35 mules, depending on this air. Air return at mouth of main slope 28,800 cubic feet per minute, balance of air lost through caved ground after passing the men; dry-bulb thermometer, 64°; wet-bulb thermometer, 63°; barometer, 23.7 inches; relative humidity, 95 per cent. Investigated condition of mine fire burning in old workings of the mine. Will make further inspection.

January 17, 1910.—Investigated conditions at pillar in room 11, fourth left straight entry, No. 3 coal seam, about 5,500 feet inside of mouth of slope, in Weaver mine, where Tony Petrovitch was killed by fall of rock last Saturday afternoon. Questioned Luigi De Drossi, the principal witness, who works in No. 6 room. He stated he had been in deceased's room at 9.30 a. m., Saturday, January 15, 1910, and had warned deceased that the rock which fell was dangerous and to take it down or prop it up. Deceased replied that he did not have a saw to cut the prop with. De Drossi offered to procure one for him if he would come to De Drossi's room. At 1.30 p. m. De Drossi returned to deceased's room and found the dead body under the rock, which had fallen.

January 18, 1910.—Investigated conditions at fire in Weaver mine. Fire walled off from main intake airway by walls of solid masonry from 4 to 6 feet thick. Went inside of fire walls; live coals were dropping from above into the space where John Jennings, superintendent, and I were crouched, showing that the fire was still burning above, in dangerous proximity to the main intake air course; probably driven back in that direction by strong wind entering from caved opening to the surface, about 45 feet distant. Water was turned up into burned area through hose by John Jennings, superintendent. The caved opening to surface is being filled as quickly as possible to shut off air from fire. Day and night guards kept watching intake air course in vicinity of the fire.

January 20, 1910.—Investigated conditions at fire in Weaver mine. Found great volume of smoke and steam issuing from the large hole caved to the surface; this hole being filled as quickly as possible. Some live coals dropping occasionally inside of fire walls and close up to wall. Water being turned on fire from opening to surface and also inside of fire wall. Day and night guards watching to have fan reversed in event fire shows indication of breaking through around fire walls. A new shaft is being sunk, 2,000 feet inside of fire, for a main intake air course, and the burning area will be cut off from the mine by a series of walls.

January 22, 1910.—Investigated conditions at fire in Weaver mine. Found considerable smoke and steam emitting from caved hole to surface; hole now partially filled, but smoke and steam exuding through the earth and rocks with which it has been filled; more earth being thrown into hole. Went behind fire walls with John Jennings, superintendent; found considerable smoke, but no fire in sight. Day and night guards in intake air course. New intake air shaft will be 126 feet deep; it is now sunk 26 feet from surface and raised 37 feet from below, 63 feet completed. When completed the burning area will be completely walled off and danger from the fire will be very slight.

January 24, 1910.—Went to Weaver mine. Behind fire walls, 6 feet inside, found fire. Gave necessary instructions.

March 15, 1910.—Investigated conditions at fire in Weaver mine. Found new fan shaft completed and fan in operation 1,600 feet ahead of mouth of main slope and the same distance from the fire, diverting ventilating current from vicinity of fire; three substantial stone and cement walls built at intervals between the old traveling way and the fire. Some CO₂ venting into manway from the fire through jointings of the strata. Instructed that a small outgoing ventilating current be kept in manway to remove CO₂, that the manway might be used in case of emergency.

March 17, 1910.—Investigated conditions at place where Mike Cernic, a miner working in No. 5 coal seam, on March 6, 1910, ignited and fired a shot on the solid, which resulted in a blown-out shot, whereby the said Mike Cernic and Henry Greenwood, a driver, were very seriously burned.

Mike Cernic was working in a raise entry on No. 5 coal seam, which was being driven toward the outcrop from a point about 1,650 feet from the mouth of the mine. He had made a cutting 10 feet in depth along the right side of the entry, and then drilled a hole near the left side of the entry and at an angle of about 35° from the entry into the rib, the hole being 5 feet in depth. The mouth of the drill hole was about 5 feet from the outer point of the cutting on the right, and the bottom of the drill hole was about 7 feet 9 inches from the nearest point of the cutting, giving the hole a grip of that amount.

Cernic claimed that he charged the hole with 18 inches of black powder, but it was thought probable by those who witnessed the results of the explosion that he had placed a much heavier charge in the hole. The explosion traveled outward to the parting on No. 3½ seam, about 500 feet distance. En route it passed by another entry about 35 or 40 feet distant from the shot hole. Cernic had gone into this entry to be out of the line of the force of the heavily burdened shot, but he was very severely burned. Continuing in a course toward No. 3½ seam, and at a point about 15 feet before reaching the parting at the junction with No. 3½ seam, Henry Greenwood, a driver, was very severely burned, and the two mules he was driving were so badly burned as to cause their death.

Indications of the explosion were trivial beyond this point, although conditions were far more favorable for a violent dust explosion than in the locality where the explosive condition was maintained. Where the explosion ceased, at the parting where empty mine cars are delivered from the surface and loaded cars put on the rope to be transported to the surface, the roadways were covered with coal dust and were quite dry. The area was large, air comparatively fresh, and conditions favorable to the extension of the explosion. By one of those eccentricities peculiar to dust explosions it ceased at this point.

At the place where the blown-out shot initiated the explosion, apart from the combustion of the crushed coal and dust from the blown-out shot, all conditions were such as to prevent or retard a dust explosion.

In crosscutting the strata into and through the intervening lower strata between No. 3½ seam and No. 5 seam, a great part of the crosscut was through sandstones and shales, and the floor was covered with broken and crushed rock and shale for the greater part of the distance traveled by the explosion; there were three small pools of water on the floor within 350 feet from the shot hole, and the locality was quite humid, as shown by the condensed moisture on the sides, top, and floor. It would appear, from the general indications that the coal dust emitted from the blown-out shot was the principal fuel consumed in the explosion, and that little if any were derived from the floor or sides of the entries, as dampened and comminuted shale and rock predominated throughout the crosscut where the explosion traveled.

That there was a considerable degree of violence developed was shown by the blowing out of a loose-laid rock stopping backed by about 1 foot of fine waste rock filling behind it in a small crosscut about 300 feet from the shot hole. Mike Cernic knew that the hole was overburdened and would be difficult to break, and it is probable he put an extra large charge of powder into the hole. He then tamped the hole with slack and drillings, although clay for tamping was provided and placed a short distance away; but he did not care about taking precautions, or did not want to be seen getting the tamping, as he would be stopped from igniting the shot if seen by anyone in authority. Being Sunday, there were only about 50 men in the mine, instead of the usual number, 210. The time was nearly noon, and the pit boss and superintendent had left the mine but a few minutes before, and did not intend to return that day, as the mine would not be operated in the afternoon. It appeared evident that Cernic knew he had a dangerous shot, and he believed that the shot firers would condemn it. He was probably also aware that the bosses had left the mine and knew that the miners were going out about that time, and he took the risk of shooting the dangerous shot rather than have it condemned. Here was an instance of a very narrow escape from a dust explosion that would probably have cost 50 lives through the willful and premeditated breach of the mine rules. Shot firers, paid by the company, are supposed to examine shots and ignite all that are approved; and miners are positively prohibited from igniting any shots. But there is no law by which a miner can be punished for such grossly criminal conduct.

The men burned were in the hospital about a month; when sufficiently recovered, Henry Greenwood, the innocent victim of a comrade's criminal negligence, was given an easy job until he was sufficiently recovered to perform his regular duties, while Cernic was discharged and went his way to endanger the lives of others, without fear of punishment under the inefficient law which is supposed to be "for protection of lives of miners in the Territories."

March 18, 1910.—Inspected mine. Air intake from fan, measured at stone stopping, 39 square feet area, 48,860 cubic feet per minute. There were 165 miners and 35 drivers and company men, a total of 200 persons, underground; also 80 mules. Air return at mouth of main slope, 29,580 cubic feet per minute;

balance of air lost through caved ground on third and fourth right entries, after passing the men. Found that most of the miners are traveling the main slope. Instructed that refuge holes be constructed at intervals of 50 feet; that the refuge holes have flaring sides to allow air to circulate through them to carry off CO₂ that might escape from old Gallup mine fire through rock joints into refuge, and that refuge be whitewashed.

April 9, 1910.—Inspected ground in locality of fires in mine, and also fire walls and new air course from old No. 1 opening, which forms second opening or escapeway from the mine. Found that the company has employed an inspector to examine fire walls at intervals during the day, and who is also responsible for safe conditions within the mine and who will instruct miners in matters pertaining to their safety. In company with Mr. William McDermott, general superintendent of the Victor-American Fuel Company's mines at Gibson, N. Mex., and Mr. John Jennings, superintendent of the Weaver mine, I examined the fire wall and made tests of the atmosphere immediately at the fire wall, about 300 feet inside of mouth of old No. 1 main entry of Weaver mine. When lamp with normal working flame was carried near or at the bottom of the entry, the flame became smaller, giving indications of CO₂; when raised to 4 feet 6 inches above the floor a bright blue flame appeared about one-half inch high above the wick, with a yellow flame 1½ inches high above the blue flame. There was a decided line of demarcation between the blue and yellow flames, the blue flame having the form of a truncated cone, and the yellow flame above representing the upper section of the same cone. I called the attention of Messrs. McDermott and Jennings to the beautiful blue flame, its extraordinary height and peculiar shape, and the horizontal plane separating it from the yellow flame above.

Repeated tests were made by lowering and raising the lamp, raising it to the top of the entry near the fire wall and behind a timber across the top of the entry. The peculiar results obtained were so interesting that the mine inspector lost sight of the danger from which he was endeavoring to protect others, and continued the investigation beyond the limit of safety to himself. Shortly after leaving the mine he was attacked with nausea, together with severe pains and a feeling of great congestion at the base of the brain. The pain, nausea, and congested feeling lasted fully forty hours after the tests made in the mine. There were positive symptoms of poisoning by CO.

May 24, 1910.—Investigated conditions at place of accident whereby Gaspar Cronovich was killed on 18th instant, in room 23, No. 31 entry. Found that place had not been worked nor disturbed since the accident. Saw piece of rock 6 feet long by 4 feet wide and from 4 to 14 inches thick which had fallen upon deceased. Two props lying under the rock indicated that the props had been set in place under the rock while it was in the roof; deceased was trying to wedge down a piece of rock alongside when the piece which fell swung the props around and fell, catching him beneath. The place was very well timbered and indicated that deceased was a careful miner. It is probable that if crossbars had been put up instead of props the piece of rock would not have fallen upon him; but it was an accident for which little if any blame could be placed upon anyone, as deceased had his place timbered in such a manner as would have been considered safe by any person skilled in mining. Inspected mine. Fan (force), 150 revolutions per minute, electrically driven. Air intake, 46,740 cubic feet per minute; air well distributed. Number of persons underground, 207, including 175 miners, 10 company men, 20 drivers, and 2 boys; also 30 mules. Air return through main slope, 24,485 cubic feet per minute; balance of air lost through caved ground.

June 27, 1910.—Inspected mine. Air intake, measured area, 38 square feet, at rock wall about 500 feet inside fan shaft, 47,120 cubic feet per minute; fan (force), 150 revolutions per minute. Miners, 168; company men, 40; boys, 2; total 210 persons underground; also 32 mules. Air return through main slope, 30,385 cubic feet per minute. Mine in good condition. In company with Mr. William McDermott, general superintendent Victor-American Fuel Company's mines at Gibson, and John Jennings, superintendent Weaver mine, I made tests of atmosphere outside of fire walls in old No. 1 main entry. I got substantially same reaction on flame of lamp as at former test (made April 9 last), namely, a bright blue flame in the form of a truncated cone ½ inch high immediately above lamp wick, and above this flame a yellow flame 1½ inches high. This reaction was shown from the middle of the entry up to where a timber was across top of entry. When the lamp was raised nearly or quite level with the bot-

tom of this timber or behind a third flame appeared; a conical yellow flame $\frac{1}{2}$ to $\frac{3}{4}$ inch high above wick of lamp and within the blue flame. When first observed it seemed to be an optical illusion—the reflection of the upper yellow flame—but upon closer observation it was seen to be within the blue flame just above the wick. This third flame appeared instantaneously when the lamp was raised to a certain elevation, about 5 feet 6 inches from the floor, where the diffusion was obstructed by the timber across the top of the entry. The experiment of lowering the lamp and raising it up to the timber was repeated many times and always with the same almost instantaneous result of a third flame when raised to a position between the timber and the fire walls. When the small yellow flame within the blue flame was first seen it appeared to be between the blue flame and the observer, as if an aperture had been made in the top of the front of the lamp between the wick tube and the glass on the side next the observer, and the volatilized naphtha of the lamp were ignited at this aperture, making a separate flame. The mine inspector said to Mr. McDermott, "See the little yellow flame separate from the lamp flame." Mr. McDermott corrected the above statement, saying, "No, it is inside the blue flame." On raising the lamp between the timber and the fire wall the yellow flame within the blue flame grew larger and longer, encroaching on and obliterating the blue flame and finally merging with the yellow flame above the blue, making one yellow flame fully 3 inches or more high, and no blue flame. When the lamp was dropped to the proper elevation the blue flame reappeared. Identical results were obtained in repeated tests.

We have here to consider the following peculiar conditions: First, the clear blue flame next to the wick of the lamp, which flame was cut off by a horizontal plane from the yellow flame above; second, the great similarity of the yellow flame that appeared within the blue flame to the yellow flame above it. The two yellow flames were identical in color and merged into one and obliterated the blue flame when the lamp was raised behind the timber. This would indicate that the combinations of gas in combustion in the lower yellow flame and the upper yellow flame were somewhat similar. Third, the gas which was indicated by the yellow flame within the blue flame was evidently stratified at the point where the timber across the top of the entry impeded the motion of the atmosphere and consequently retarded diffusion.

HEATON MINE.

The Heaton mine, in sec. 35, T. 16 N., R. 18 W., New Mexico principal base and meridian, is opened by a slope, 2,600 feet in depth, 1,200 feet of which is driven from the surface on the No. 2 coal seam. The No. 3 seam was exploited at and above this depth and a large amount of coal extracted. From the 1,200-foot level the slope was driven at an angle of dip greater than that of the coal measures until the No. 8 $\frac{1}{2}$ seam was intersected at about 1,500 feet from the pit mouth. From that point and below extensive development has been done upon the No. 3 $\frac{1}{2}$ seam. The same system of working as described in the Weaver mine also obtains in the Heaton mine. The mine is ventilated by a Crawford & McCrimmon fan, 14 feet diameter by 4 feet wide, forcing air, but reversible; electrically driven, but auxiliary steam engine in reserve for emergencies. A sprinkling system is maintained by means of pipes throughout the workings. Average number of miners employed, 150; company men, 31; boys, 4; total number of persons underground, 185; men employed outside at the mine, 30; boys, 3; total outside at the mine, 33. The mine was operated 262.3 days during the year; gross product, 266,925 tons; amount used in operating the mine, 2,513 tons; net product shipped to market, 264,412 tons; average price per ton at the mine, \$1.75; total value of net output, \$462,721. The coal was sold in the same markets as stated in the Weaver mine description.

RECORD OF INSPECTION.

October 28, 1909.—Inspected mine. Air intake, observation at 100 feet down fan slope entry fan (force), 70 revolutions per minute, $a50$ square feet $\times v490=24,000$ cubic feet per minute; dry-bulb thermometer, 59° ; wet-bulb thermometer, 41° ; barometer, 23.57 inches; relative humidity, 85 per cent. Humidity test at return from the first east entry, 2,400 feet down slope, dry-bulb thermometer, 58° ; wet-bulb thermometer, 51° ; barometer, 23.58 inches; relative humidity, 65 per cent. Air return, mouth of main slope, $a54$ square feet $\times v510=27,540$ cubic feet per minute; dry-bulb thermometer, 61° ; wet-bulb thermometer, 60° ; barometer, 23.52 inches; relative humidity, 95 per cent. All entries except two are wet and muddy, so wet that cinders are hauled into mine to make roadway passable for mules. One hundred and eighty-five miners, 50 company men, and 4 boys, a total of 237 persons, underground; also 24 mules. Instructed Sam Woods, superintendent, to increase ventilation.

January 15, 1910.—Inspected mine. Air intake, 30,000 cubic feet per minute; fan, 80 revolutions per minute; dry-bulb thermometer, 40° ; wet-bulb thermometer, 38° ; barometer, 23.62 inches; relative humidity, 85 per cent. One hundred and eighty-seven miners, 34 company men, and 4 boys, a total of 225 persons, and 24 mules underground. Air insufficient in volume; notified Sam Woods, mine superintendent, to increase air supply. Air return through main slope, 26,790 cubic feet per minute, balance lost through caved ground after passing workmen; dry-bulb thermometer, 58° ; wet-bulb thermometer, 57° ; barometer, 23.55 inches; relative humidity, 95 per cent. Air not very good in some parts of mine. Gave instruction that ventilation be improved.

March 22, 1910.—Inspected mine. Operation temporarily suspended for today. Air intake, 37,000 cubic feet per minute. Fan (force), 95 revolutions per minute. There were 175 miners, 32 company men, and 4 boys, a total of 211 persons, underground; also 24 mules. Air return through main slope, 41,760 cubic feet per minute. Gave instruction to guard against blown-out shots and to maintain strict discipline that none but regularly employed shot firers be allowed to ignite shots.

March 24, 1910.—Inspected mine. Air intake, 31,000 cubic feet per minute. Some difficulty with electric connection; fan running by steam engine, velocity from 76 to 90 revolutions per minute. Air intake close to minimum. Air return, 37,120 cubic feet per minute. There were 172 miners, 32 company men, and 4 boys, a total of 208 persons, underground; also 21 mules.

April 13, 1910.—Inspected mine. Air intake, 37,000 cubic feet per minute. Fan (force), 100 revolutions per minute. Number of persons underground, 160 miners, 39 company men, and 4 boys; total, 203 persons; also 22 mules. Air return just above split of old and new slope, 44,000 cubic feet per minute. Found place in room where a bad shot had been fired; shot strong on solid, stump of hole left 2 feet 8 inches. Although all shots are fired when everyone but the shot firer is out of the mine, yet the shot firer should not have risked his own life, but should have condemned the shot. Instructed general superintendent and superintendent to call shot firer to account for negligence.

May 25, 1910.—Investigated conditions at pillar in No. 4 room, first east main cross entry, Heaton mine, where George Pecaric was killed by fall of rock May 9, 1910. The exact place where accident occurred was caved, but could reach point 5 feet from place of accident. From all information it appears to have been an accident which could not have been anticipated nor provided against in practical mining. A large piece of rock swung the props, allowing the rock to fall. Deceased used ordinary precautions for his safety. Inspected the mine. Fan (force), 96 revolutions per minute. Air intake, 50,500 cubic feet per minute. One hundred and forty miners, 12 company men, 17 drivers, and 4 boys, a total of 173 persons, underground; also 23 mules. Air return through main slope, 41,640 cubic feet per minute; part of air lost through caved ground.

June 28, 1910.—Inspected mine. Air intake, measured at usual place in fan slope, 200 feet inside of fan, 46,500 cubic feet per minute. Fan (force), 94 revolutions per minute. Miners, 150; company men, 35; boys, 4; total, 189 persons underground; also 21 mules. Air return through main slope, 49,400 cubic feet per minute. Mine in good condition.

NAVAJO MINE.

The Navajo mine lies in the SE. $\frac{1}{4}$ sec. 33, T. 16 N., R. 18 W., New Mexico principal base and meridian. Four seams of coal are opened

in the mine, Nos. 1, 2, 3, and 5. The main slope followed No. 2 coal seam of the upper coal measures to a depth of about 1,235 feet, where a down-throw fault brought the No. 1 seam into juxtaposition with the face of the slope. The slope was then continued on the No. 1 seam to a total depth of 2,300 feet. This is the only mine in which the No. 1 or No. 2 seams have been developed in recent years. At a depth of about 2,000 feet a crosscut was run into the foot wall strata to the intersection of No. 5 seam, which is being exploited from that point. The mine was operated 275.3 days during the fiscal year. Eighty-five miners and 24 company men were employed underground, and 26 men outside at the mine. Gross product, 132,278 tons; amount used in operating the mine, 1,797 tons; net product, 130,481 tons; average price per ton at the mine, \$1.75; total value of net product, \$228,341.75. The coal is sold to the Atchison, Topeka and Santa Fe Railroad and is also marketed in New Mexico, California, Arizona, and Texas.

RECORD OF INSPECTION.

October 27, 1909.—Inspected mine. Air intake, 200 feet from fan, in fan entry, $a68 \text{ square feet} \times v780 = 49,140 \text{ cubic feet per minute}$. Fan (force), 88 revolutions per minute; dry-bulb thermometer, 52° ; wet-bulb thermometer, 39° ; barometer, 23.55 inches; relative humidity, 46 per cent. Air traveling at last crosscut from fan entry to main slope, about 2,000 feet from mouth of slope, $a31.5 \text{ square feet} \times v200 = 6,300 \text{ cubic feet per minute}$; dry-bulb thermometer, 55° ; wet-bulb thermometer, 45° ; relative humidity, 49 per cent. Air return at mouth of main slope, $a60 \text{ square feet} \times v500 = 30,000 \text{ cubic feet per minute}$; part of air escapes through caved workings after passing men. Ninety-eight miners, 12 company men, and 1 boy, a total of 111 persons, underground; also 12 mules. All shots in this mine, as also in the Weaver and Heaton mines, operated by the Victor-American Fuel Company, are inspected and ignited by shot firers.

January 14, 1910.—Inspected mine. Air intake, measured 200 feet inside of fan, $52,920 \text{ cubic feet per minute}$. Fan, 118 revolutions per minute; dry-bulb thermometer, 40° ; wet-bulb thermometer, 38° ; barometer, 23.6 inches; relative humidity, 85 per cent. One hundred miners and 13 company men underground; also 11 mules. Air return through main slope, $39,600 \text{ cubic feet per minute}$; balance of air lost through caved ground after passing workmen; dry-bulb thermometer, 50° ; wet-bulb thermometer, 46° ; barometer, 23.57 inches; relative humidity, 77 per cent. Found mine in good condition.

March 21, 1910.—Inspected mine. Air intake, $44,200 \text{ cubic feet per minute}$. Fan (force), 88 revolutions per minute. One hundred miners and 16 company men underground; also 12 mules. Air return through main slope, $42,560 \text{ cubic feet per minute}$; balance of air lost through caved ground after passing men. Found mine in good condition, except dry and dusty in some sections. Instructed that this condition be remedied; also suggested that the fan be slowed at shot-firing time. Shots are ignited by shot firers, who also inspect and condemn holes if too strong. Shots fired after all but shot firers are out of mine.

April 12, 1910.—Inspected mine. Air intake, $59,850 \text{ cubic feet per minute}$. Fan (force), 112 revolutions per minute. One hundred and ten miners and 22 company men underground; also 19 mules. Air return through main slope, $41,250 \text{ cubic feet per minute}$; balance of air lost through caved ground after passing men. The company employs shot inspectors, who also fire the shots, and whose only duty is to look after the safety of the men, instructing them how to place their shots and overseeing timbering of the working places. An inspector is employed on each mine by this company.

May 26, 1910.—Inspected mine. Fan (force), 93 revolutions per minute. Air intake, $44,100 \text{ cubic feet per minute}$. There were 96 miners, 6 company men, and 8 drivers, a total of 110 men, underground; also 19 mules. Air return through main slope, $26,950 \text{ cubic feet per minute}$; balance of air escapes through several openings to No. 15 entry shaft of old Gallup mine. Found mine in good condition.

June 29, 1910.—Inspected mine. Air intake, 40,950 cubic feet per minute. Fan (force), 100 revolutions per minute. Miners, 100; company men, 12; boys, 1; total, 113 persons underground. Air return through main slope, 26,400 cubic feet per minute; part of air lost through caved ground to old No. 15 shaft of Gallup mine.

CLARK MINE.

The Clark mine is located in the NE. $\frac{1}{4}$ sec. 14, T. 15 N., R. 19 W., New Mexico principal base and meridian. The mine is owned by the Victor-American Fuel Company, and was described in the annual report for 1907. It was not operated during the past fiscal year.

OTERO MINE.

The Otero mine is in the NE. $\frac{1}{4}$ NW. $\frac{1}{4}$ sec. 14, T. 15 N., R. 18 W., New Mexico principal base and meridian, about 3 miles east and 1 mile north of Gallup. A spur connects it with the main line of the Santa Fe Pacific Railroad. The mine is owned by the Victor-American Fuel Company. It was not operated during the past fiscal year.

THATCHER MINE.

The Thatcher mine, which adjoins the Otero mine on the east, is located in the SW. $\frac{1}{4}$ sec. 12, T. 15 N., R. 18 W., New Mexico principal base and meridian. It is owned by the Victor-American Fuel Company. It was described in the annual report for 1906. This mine was not operated during the past fiscal year.

CATALPA MINE.

The Catalpa mine, owned by the Victor-American Fuel Company, is located in the NE. $\frac{1}{4}$ sec. 34, T. 13 N., R. 18 W., New Mexico principal base and meridian, was described in the annual report for 1906. Operations were indefinitely suspended seven years ago, as the other mines owned by the same company were sufficiently developed to produce all the coal that could be marketed.

GALLUP MINE.

The Gallup mine, owned by the Victor-American Fuel Company and located at Gibson, in secs. 33 and 34, T. 16 N., R. 18 W., New Mexico principal base and meridian, was fully described in the annual report for 1906. This mine has not been operated since the early part of 1904, on account of a fire which burned in the old abandoned workings for many years. It is believed the fire is now extinguished. The several mines named above on which operations are suspended will probably resume operations as soon as the demand for coal justifies.

CANAVAN MINE.

The Canavan mine is located in the NE. $\frac{1}{4}$ sec. 4, T. 15 N., R. 18 W., New Mexico principal base and meridian. This is the only coal mine in New Mexico operated through a vertical shaft. The main working shaft is 205 feet in depth. Another shaft, about 200 feet distant, is used for the second opening into the mine; the fan is located on this shaft. The mine works one of the coal seams of the

lower coal measures, probably the Crown Point seam. Thickness of coal, $5\frac{1}{2}$ feet; dip of seam, 6° ; character of coal, lignite; ventilation by fan; two steam engines are in use (one 60-horsepower and one 25-horsepower) for hoisting and running the fan; system of working, shaft, double entry, room and pillar. Average number of miners employed, 35; average number of day men underground, 10; average number employed outside, 7; number of days mine was operated during fiscal year, 300; total output, 49,000 tons; used in operating mine, 1,000 tons; net product, 48,000 tons; estimated value of net product at the mine, \$84,000. This mine was recently purchased by the Victor-American Fuel Company.

RECORD OF INSPECTION.

October 25, 1909.—Inspected Canavan mine. Air intake, measured in main air course, near bottom of air shaft, $a33$ square feet (6 by 5.5 feet) $\times v550=18,150$ cubic feet per minute; dry-bulb thermometer, 52° ; wet-bulb thermometer, 44° ; barometer, 23.87 inches; relative humidity, 57 per cent. Fan (force), 90 revolutions per minute. Twenty-five miners, 10 company men, 1 boy, total 36 persons, and 7 mules underground. Air return to main working shaft, $a52.5$ square feet (7 by 7.5 feet) $\times v590=20,475$ cubic feet per minute; dry-bulb thermometer, 59° ; wet-bulb thermometer, 58° ; barometer, 23.9 inches; relative humidity, 95 per cent. Found main intake air course in bad condition; also first left entry off first right entry; also found bottom of air shaft in bad condition; it is the escape shaft. Men shooting off the solid. Mine quite wet. Gave necessary instructions.

January 21, 1910.—Inspected Canavan mine. Air intake, 11,862 cubic feet per minute. Fan (force), 85 revolutions per minute; dry-bulb thermometer, 39° ; wet-bulb thermometer, 36° ; barometer, 24.15 inches; relative humidity, 77 per cent. Thirty-four miners, 8 company men, 1 boy; total, 43 persons, also 3 mules on this air. Air return to main shaft 19,200 cubic feet per minute; dry-bulb thermometer, 56° ; wet-bulb thermometer, 55° ; barometer, 24.1 inches; relative humidity, 94 per cent. Found air shaft in bad condition; telephone broken; no means of oral communication between bottom of shaft and surface. I will make special communication and complaint to the Secretary of the Interior, as required by law.

January 24, 1910.—Interviewed Stephen Canavan, owner and operator Canavan shaft mine; tried to persuade him to improve conditions at air shaft in said mine and to repair telephone. Received only evasive and indefinite replies as to when he would make improvements. He claims the record of the mine for few accidents should be satisfactory, and that there is no real necessity for improvements suggested. Inspected Canavan air shaft; found it in bad condition, as shown by correspondence in the instruction to Canavan.

March 16, 1910.—Inspected Canavan mine. Air intake, 7,000 cubic feet per minute. Fan, 48 revolutions per minute; fan running at slow speed on account of men in fan shaft, making repairs and constructing stairway, as per instructions issued by United States mine inspector, the Secretary of the Interior, and the governor of New Mexico. Air return to main shaft could not be approximately measured, as it enters shaft through entries on 3 sides and escapes into shaft through open ground on top of entries. Fourteen miners, 10 company men and drivers, total 24 persons, and 2 mules underground. Found much improvement in conditions since last visit of inspection.

March 24, 1910.—En route from Heaton mine to Gallup, N. Mex., stopped at Canavan shaft to learn progress upon stairway in air shaft and timbering shaft as per instruction issued by the Secretary of the Interior. Found that two shifts are employed upon the work and that it will probably be completed within time limit. Will return at end of time limit and inspect completed work.

April 8, 1910.—Inspected improvements in Canavan shaft. Shaft 200 feet in depth; found shaft retimbered, stairway completed, except handrall, which is being put up and will probably be completed within forty-eight hours. Telephone in working order. Wrote W. J. Mills, governor of New Mexico, advising that no further action be taken in the matter at present. The installation of improvements was not completed within the time limit, partly because of the difficulty in enlarging the shaft.

April 11, 1910.—Inspected Canavan shaft mine. Air intake measured in drift between upper and lower section of fan shaft, 80 feet above bottom of shaft, 15,840 cubic feet per minute. Fan (force), 98 revolutions per minute. Twelve miners, 11 company men, total 23 persons, and 2 mules underground. Traversed all workings in operation; found mine wet and very muddy; no trace of CH₄ in this district. Miners shooting off the solid. Found stairway in fan shaft completed, with handrail from top to bottom. Instructed that more timbering be done in places specified and where necessary in mine.

UNION MINE.

The Union mine is owned and operated by the Gallup-Southwestern Coal Company. The mine is in the N. $\frac{1}{2}$ NE. $\frac{1}{4}$ sec. 28, T. 15 N., R. 18 W., New Mexico principal base and meridian, on the Black Diamond coal seam, the third seam of the lower coal measures in the Gallup field. There are four workable coal seams in these lower coal measures—the upper seam, known as the "Crown Point," the Thatcher, or No. 2, the Black Diamond, and the Otero seam. The mine is opened by a slope 1,200 feet in length, driven to the dip of coal seam; angle of dip, 25°; thickness of coal, 6 feet. There are two steam engines in use, one 80-horsepower and one 30-horsepower. The coal is hauled by mules to the parting within the mine, and by rope haulage from mine to tippie; ventilation is by furnace and shaft. The mine was operated 220 days during the fiscal year; 12 miners and 3 company men were employed underground and 7 men outside; gross production, 11,260 tons; amount used in operating the mine, 260 tons; net production, 11,000 tons; average price per ton at the mine, \$1.82; total value, \$20,046.

RECORD OF INSPECTION.

October 22, 1909.—Inspected mine. Air intake, 5,640 cubic feet per minute. Air return to air shaft is through old abandoned and caved workings, into which I went as far as was practicable, but could not find a place in which the air current was restricted so that it might all be measured. Instructed that a better return air course be prepared. Found mine very dry and dusty, and miners shooting off the solid. Instructed that mine be sprinkled or dust removed, and that shooting off the solid be prohibited. Ten miners, 1 company man, 1 driver, 1 rope rider, and pit boss underground.

January 19, 1910.—Inspected mine. Air intake, 13,610 cubic feet per minute; dry-bulb thermometer, 34°; wet-bulb thermometer, 30°; barometer, 23.62 inches; relative humidity, 67 per cent. Eleven miners, 2 company men, total, 13 persons; and 2 mules on this air. Air return from right of slope 9,500 cubic feet per minute; dry-bulb thermometer, 46°; wet-bulb thermometer, 44°; barometer, 23.55 inches; relative humidity, 87 per cent. Air return to air shaft, left side of slope, 7,500 cubic feet per minute; dry-bulb thermometer, 51°; wet-bulb thermometer, 50°; barometer, 23.65 inches; relative humidity, 94 per cent. Found mine dry and dusty, and miners all shooting off the solid. Gave necessary instructions. General Manager Samuel Atherton promised to have defects remedied.

March 23, 1910.—Inspected mine. Air intake, 9,600 cubic feet per minute. Number underground: Miners, 13; company men, 2; total, 15; also 1 mule. Could not get return air, as machinery was stopped by cable dropping under the brake on engine and stopping trip of cars in return air way. Found that stairway had not been constructed in shaft to constitute second opening. There are four openings, but no two 150 feet, as required by law. Telephone burned out two weeks ago; instructed that it be replaced. Miners shooting off the solid and mine dry and dusty in places; requested that conditions be improved. Mine Superintendent Hanson came to hotel at Gallup at 7.30 p. m. and discussed necessary improvements, promising to have them made.

April 14, 1910.—Inspected mine. Natural ventilation. Air intake, 12,300 cubic feet per minute. Thirteen miners, 3 company men, total, 16 persons, underground; also 1 mule. Found work being prosecuted upon what is in-

tended for second opening, but is only a switch off main slope at a depth of about 300 feet. Instructed that the second opening be constructed in a different way. Miners shooting off the solid and mine dusty. Gave necessary instructions.

CASNA MINE.

The Casna mine is in the SW. $\frac{1}{4}$ sec. 18, T. 15 N., R. 18 E., New Mexico principal base and meridian, about 2 miles west of Gallup. The Diamond Coal Company, comprised of residents of Arizona and New Mexico, is the owner of the property; W. J. Patching, Gallup, N. Mex., general manager. The coal is subbituminous; an excellent domestic fuel; thickness of coal seam, 5 feet; system of working, slope, double entry, room and pillar. It is probable that the mine may be operated through a shaft in future. Length of slope, 1,700 feet; dip of coal seam, 4°. Ventilation and escape way through two shafts.

The mine was not operated for production of coal during the past fiscal year, but considerable work was done upon development and surface equipment. New dwelling houses were erected for the use of employees, and a railroad spur was built from the mine to the main line of the Atchison, Topeka and Santa Fe Railroad. The mine is now equipped to become one of the large producers of the district.

ENTERPRISE MINE.

The Enterprise mine is in sec. 10, T. 15 N., R. 18 W., New Mexico principal base and meridian. The mine, which is owned by Brown Brothers, is located on the Black Diamond coal seam of the lower coal measures. The main drift entry has attained a length of 950 feet on the 3 per cent dip of the seam. System of working, double entry, room and pillar. Thickness of coal seam, 5 $\frac{1}{2}$ feet. Ventilation by furnace.

The mine was operated 154 days during the year; number of miners employed, 7; day men underground, 3; outside, 1; total and net output for the year, 4,166 tons; estimated value of product at the mine, \$7,291.81. The coal was sold in New Mexico, Arizona, and California.

NAVAJO SCHOOL MINE.

This mine, heretofore reported to this office as the United States Government mine, is located on unsurveyed lands near the dividing line of Tps. 17 and 18 N., R. 19 W., New Mexico principal base and meridian, or in T. 1 N., R. 4 W., Navajo line and meridian. The mine, which supplies fuel for the agency, is operated under the direction of Peter Paquette, superintendent of the Navajo Indian Agency and schools at Fort Defiance, Ariz., about 9 miles distant. The coal seam is supposed to be the same as the one operated at St. Michaels mine. Its details are similar, except that it dips about 3° E. Thickness of coal seam, 5 feet 10 inches; length of main slope entry, 150 feet. The mine was operated 60 days during the year, 3 Americans and 1 Navajo Indian being employed. Net product, 800 tons; estimated value at the mine, at \$2 per ton, \$1,600.

ZUÑI RESERVATION MINE.

The Zuñi Reservation mine is operated by the United States Government to supply fuel at the Black Rock Indian Agency and is under

the control of William J. Oliver, superintendent of the agency. The mine is situated in T. 11 N., R. 17 W., New Mexico principal base and meridian. The coal seam belongs to the Gallup coal measures, and is from 1 foot 6 inches to 3 feet in thickness, practically horizontal. The coal is black lignite of good quality.

The mine was operated 100 days during the year, 1 Italian and 1 Zuni Indian being employed; net product, 500 tons; estimated value at the mine, \$750. The mine is developed by two drift entries connected at the interior end, furnishing means of escape and ventilation.

ST. MICHAELS MINE.

The St. Michaels mine is in T. 16 N., R. 20 W., New Mexico principal base and meridian. It is situated on lands owned by the Santa Fe Pacific Railway and is operated by permission of the railway company under direction of Friar Anselm Weber, in charge of the St. Michaels Indian School and Mission, 7 miles from the mine. The coal seam belongs to the Gallup series, and the writer believes it to be in the lower measures. The seam is 5 feet thick. A thin parting of shale 2 feet 5 inches from the bottom is not constant, and the seam may be said to show 5 feet of clean coal. It appears to be a stronger coal than that mined near Gallup and is probably the same as is worked in the Navajo School mine by the United States Indian agency at Fort Defiance for fuel for that agency. The bed lies practically horizontal. The mine is worked through a drift entry 260 feet long, and a second opening has been made. The mine is worked a few weeks each year. One American miner is employed, with 1 Navajo Indian, who pushes the car out to the coal chute. The production is 150 tons per annum, valued at about \$2 per ton at the mine; total value of product, \$300.

RIO ARRIBA COUNTY.

The coal mines of Rio Arriba County were in a comparatively dormant condition during the past fiscal year. The total coal production of the county was 13,850 tons, or 4,071 tons more than in the preceding year. A considerable area is underlain by 2 seams of good bituminous coal. The lower seam is from 2 feet 8 inches to 4 feet thick; the upper seam varies from 3 feet 6 inches to 6 feet in thickness. The coal will make a good grade of coke; and there is every reason to believe that this field will be thoroughly exploited upon the completion of the new Arizona & Colorado Railroad, now being built by Southern Pacific Railroad interests. This new line will furnish a shorter haul for coal from the coal mines in San Juan County, and for coal and coke from the mines in the vicinity of Monero, Rio Arriba County, than between other coal mines and the smelting plants of Arizona, where much of the coke produced in New Mexico is consumed.

The wearing out of equipment and neglect to renew it caused a suspension of operation in the lower workings of the mines. The mines have been worked in a desultory way during the past fiscal year by a few miners who paid the owners of the property royalties for the privilege of mining from shallow excavations near the surface.

RIO ARriba COAL COMPANY'S MINES.

The Monero mine is in the NE. $\frac{1}{4}$ sec. 18, and the McBroom mine in the SE. $\frac{1}{4}$ sec. 17, T. 31 N., R. 1 E., New Mexico principal base and meridian. These two mines were described in the annual report for 1906. These mines were formerly the largest producers in the county, but during the past two years have been worked intermittently by individual miners, who received occasional orders for a carload or two of coal, which was supplied from shallow openings. Upon the occasion of the mine inspector's visit, on November 16, 1909, these mines were not being operated, and no returns of production or other statistics have been made to this office during the past fiscal year.

BURNS-BIGGS LUMBER COMPANY MINE.

The Burns-Biggs Lumber Company's mine is located in the SE. $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 31 N., R. 1 W., New Mexico principal base and meridian. The mine is operated to supply fuel to the railroad which transports the lumber from the company's sawmills, at El Vado, N. Mex., to the Denver & Rio Grande Railroad at Lumberton, N. Mex. The railroad is about 38 miles in length and is known as the Denver & Southwestern Railroad. The mine is operated under contract by Barney Carrantha. The coal seam is 32 inches in thickness, clean coal; dip of seam, 6° SW. It is a bituminous coal of the same quality as found in the other mines of the Amargo coal measures, and makes a good coke. The mine is operated by the slope, single entry, room and pillar system. The main slope is 600 feet in depth. Ventilation is by furnace. Average number of men employed underground, 7; outside, 2; number of days mine was operated during the year, 240; net product, 5,500 tons; estimated value at mine, at \$2 per ton, \$11,000.

RECORD OF INSPECTION.

November 15, 1909.—Inspected Burns-Biggs mine. Air intake $a23\frac{1}{2}$ square feet $\times v110=2,598$ cubic feet per minute; dry-bulb thermometer, 33°; wet-bulb thermometer, 30°; barometer, 25.28 inches; relative humidity, 71 per cent. Air return to furnace, $a13\frac{1}{2}$ square feet $\times v260=3,575$ cubic feet per minute; dry-bulb thermometer, 50°; wet-bulb thermometer, 48°; barometer, 25.29 inches; relative humidity, 88 per cent. Mine makes water; workings all damp. Five miners and 2 drivers underground; also 1 burro. A little gas is sometimes found in this mine. Found trip ascending without a drag; instructed that the drag be used on every ascending trip. Instructed that air be kept up to face of every working place to avoid all danger from accumulation of gas.

KUTZ MINE.

The Kutz mine, owned by George W. Kutz, is in the NW. $\frac{1}{4}$ sec. 17, T. 31 N., R. 1 E., New Mexico principal base and meridian. The statistical blank sent to the operator of this mine, for data for this report, was not filled out and returned to this office. The figures given are approximates, estimated from production, etc., of previous operation of the mine. Upon the last visit of inspection the slope pillars in the upper coal seam were being pulled preparatory to abandoning operation of this seam through the Kutz slope, as the area owned by the operator had been exhausted of coal in the upper

seam. A considerable tonnage of coal is left in the adjoining ground. Number of miners employed, 10; company men, underground, 3; men employed outside, 2; number of days mine was operated, 120; gross production, 4,750 tons; used at mine, 250 tons; net product shipped, 4,500 tons; average price per ton, \$1.50; total value, \$6,750. The coal was sold to the Denver and Rio Grande Railroad and in the San Luis Valley, Colorado, and at Santa Fe, N. Mex., transportation via Denver and Rio Grande Railroad.

RECORD OF INSPECTION.

November 16, 1909.—Inspected mine. Found mine well ventilated, but pillars being drawn in dangerous manner, without sufficient timbers to give warning; gave necessary instructions. Ten miners, 1 driver, and 1 pit boss, underground.

ANGEL MINE.

The Angel mine, near the railroad station at Monero, is in T. 31 N., R. 1 E., New Mexico principal base and meridian. It was opened and operated twenty years ago by the San Luis Coal Company, but has been idle until the past year, when it was worked under a royalty by A. Luchetti. The seam is the upper bed of the Monero or Amargo coal measures, and is opened in a hill or mesa on the west of Amargo Creek by a drift entry driven 300 feet to the raise at an angle of 7°. Thickness of coal seam, 3 feet; price per ton paid for mining, \$1; ventilation by furnace. Number underground miners, 13; company men 2; total, 15; number of men employed outside, 5; number of days mine was operated, 120; total production, 3,600 tons; average price per ton at mine, \$1.50; total value, \$5,400. The mine was not in operation on the date of the last visit to the camp by the United States mine inspector. The mine is operated intermittently as orders for coal may be received.

LAING MINE.

The Laing mine lies in T. 31 N., R. 1 E., New Mexico principal base and meridian, about $1\frac{1}{4}$ miles from Monero station, on the Denver and Rio Grande Railroad. This mine is located upon the lower seam of the Amargo coal measures. The seam is 3 feet $8\frac{1}{4}$ inches in thickness, but is banded with shale and sandstone; dip of seam, about 6° southwest. The bed is a good bituminous coal, and will make good coke. There are supposed to be two other coal seams in this ground, as in the Monero and Kutz mines. The mine was not operated during the past fiscal year.

SANDOVAL COUNTY.

There are several outcrops and exposures of coal in Sandoval County on the northern uplift of the Sandia Mountains. The coal fields in this county were described in the annual report for 1906.

HAGAN MINE.

The Hagan mine, in the NW. $\frac{1}{4}$ sec. 33 N., R. 6 E., New Mexico principal base and meridian, was described in the report for 1906. This mine was not operated during the past fiscal year.

SLOAN MINE.

The Sloan mine is located in what is called the Coyote field, being about half way between the Hagan mines and the Pinavititos coal field. The same series of coal seams as are found in the Hagan mine extend into and through the Coyote field. The mine is owned by the Sloan Coal Company. The property has been opened by a slope about 200 feet in depth. The coal seam is about 7 feet in thickness. Little work has been done on this property for the last five years.

SAN JUAN COUNTY.

A large part of the area embraced in San Juan County is underlain by thick beds of subbituminous coal. These coal measures extend from a point 40 miles south of Gallup, N. Mex., to the Colorado line and beyond; descriptions of the many coal outcrops of this field were given in former annual reports.

The projected branch of the Southern Pacific Railroad, known as the Arizona and Colorado Railroad, will traverse these coal areas throughout the greater part of their length from north to south.

Preliminary work is being carried forward with great diligence. It is safe to assume that within two years the coal from the San Juan fields will find an outlet to the markets of the Southwest in Arizona, California, and Mexico.

LA PLATA MINE.

The Le Plata mine, in the NE. $\frac{1}{4}$ sec. 32 N., R. 13 W., New Mexico principal base and meridian, was fully described in the annual report for 1906. Operation of the property was suspended four years ago.

STEVENS MINE.

The Stevens mine is located in sec. 4, T. 29 N., R. 15 W., New Mexico principal base and meridian, about $2\frac{1}{2}$ miles from Fruitland. The nearest railroad point is Farmington, N. Mex., 12 miles distant by wagon road. This mine is upon the line of the projected new railroad mentioned above. The coal is subbituminous; thickness of seam, 12 feet, 10 feet of which is clean; nearly horizontal. System of working, drift entry, room and pillar. Extent of workings: Main drift, 250 feet; right entry, 250 feet; left entry, 250 feet. Four men are employed at this mine during four months of the colder seasons, and but one for the remaining eight months of the year. The mine was operated one hundred and forty-two days during the year; total production, 833 tons; price per ton, \$1.50 at the mine; total value, \$1,250. The product is sold in the towns of Fruitland and Farmington and to farmers of the San Juan Valley. The mine was not operated after May 1, 1910, due to flooding of mine by leakage from an irrigation ditch above.

KIRTLAND MINE.

The Kirtland mine lies in the SW. $\frac{1}{4}$ NE. $\frac{1}{4}$ sec. 4, T. 29 N., R. 15 W., New Mexico principal base and meridian. The mine is opened by a slope 375 feet in depth; thickness of coal seam, 14 feet;

ventilation by air shaft. Five men are employed underground during the three winter months, and one man during the summer months. The mine was operated one hundred and ninety-six days during the fiscal year; number of tons of coal mined, 1,065; price per ton at mine, \$1.50; total value of production, \$1,597.50. The coal is sold in the towns of Fruitland, Farmington, and Liberty and to the farmers of the San Juan Valley. The mine is owned by W. L. Hendrickson, Fruitland, N. Mex., and is operated by Thomas Evans.

ENTERPRISE MINE.

The Enterprise mine is located in the SW. $\frac{1}{4}$ SE. $\frac{1}{4}$ sec. 21, T. 32 N., R. 13 W., New Mexico principal base and meridian. Development consists of a slope entry 350 feet in length and a second opening by incline shaft on the coal seam, intersecting the slope near the end and at a depth of about 40 feet vertically from the surface; dip of seam, 22°. Number of men employed underground and outside, 2; number of days mine was operated during the year, 60; total output of coal, 400 tons; net output, 400 tons; estimated value at mine, at \$1.50 per ton, \$600. The product was sold to the farmers of La Plata and San Juan Valleys, N. Mex. Returns from this mine were not available; above figures are estimated.

THOMAS MINE.

The Thomas mine lies in sec. 21, T. 32 N., R. 13 W., New Mexico principal base and meridian, and was described in the annual report for 1906. It is owned by Thomas Brothers. The statistical blanks for data for this report, which were sent to the operator, were not filled out and returned as requested, and the figures are estimated on the basis of production, etc., of former years. The mine was operated 125 days during the year; number of men employed underground, 1; output, 400 tons; estimated value at mine, at \$1.50 per ton, \$600. The product is sold to the farmers of the La Plata Valley and vicinity and at Aztec, N. Mex.

SAN JUAN MINE.

The San Juan mine is located about 8 miles north from Shiprock, Navajo Indian Agency, in T. 30 N., R. 17 W., New Mexico principal base and meridian. The mine is operated by the Government, under the management of W. T. Shelton, agency superintendent, the product being used for fuel at the Shiprock Indian Agency and schools. There are five seams of coal in the measures at this place, the San Juan mine being operated on the second seam from the bottom, which appears to be the cleanest of the series; thickness of seam, 6 feet 3 inches, clean coal. The mine is opened by a drift entry of about 300 feet, following the dip of the seam at an angle of about 4°. Number of men employed underground, 3; number of days mine was operated, 100; net product, 500 tons; estimated value at the mine, at \$1.50 per ton, \$750. Statistical blanks for data for this report were sent to the manager of the mine, but no acknowledgment of receipt of same was made, nor were the blanks filled out and returned. The figures given are estimated.

BLANCHARD MINE.

The Blanchard properties consist of nine coal claims in secs. 28, 32, 33, and 34, T. 30 N., R. 15 W., New Mexico principal base and meridian. About \$5,000 has been expended on development work at these properties. The coal seam is supposed to be the same as that opened in the Stevens mine.

SAN MIGUEL COUNTY.

Considerable prospecting for coal has been done at divers places throughout the county during the past fifteen years, but thus far the developments have failed to produce coal in sufficient quantity to warrant the installation of transportation facilities, and the mines have not shipped any of the product to market.

PECOS MINE.

The Pecos coal mine is located in the E. $\frac{1}{2}$ sec. 5, T. 16 N., R. 12 E., New Mexico principal base and meridian. It lies in the northwestern part of San Miguel County, N. Mex. A good wagon road leads from the mine to Glorieta station, on the Atchison, Topeka and Santa Fe Railway, a distance of about 10 miles. The coal is a good quality of bituminous and makes excellent coke; thickness of seam, 3 feet; dip, 5°. System of working, single cross entry, room and pillar; depth of main slope, 273 feet; natural ventilation. This mine has not been operated for several years. While all the other coal measures of New Mexico are of Cretaceous age, those of the Pecos occur in limestones, presumably of Carboniferous age.

EL PORVENIR MINE.

The El Porvenir mine is in secs. 12 and 13, T. 17 N., R. 14 E., New Mexico principal base and meridian, on the Las Vegas grant, and about 8 miles from Las Vegas, the nearest railroad station. Prospecting with a diamond drill has shown encouraging results. No coal has yet been marketed.

COWLES MINE.

The location of this mine is probably in T. 18 N., R. 12 E., New Mexico principal base and meridian. The mine opening is at an altitude of 7,875 feet above sea level.

The coal seam occurs in calcareous shales, presumably of Carboniferous age; thickness of seam, 1 foot; dip, 1°; direction, N. 70° W. It is opened by a drift entry, in the direction of the dip, 320 feet in length.

The property was operated by the Pecos Copper Company (O. W. Alexander, superintendent in charge) to supply blacksmith coal at the copper mine, about half a mile distant. The bituminous coal is of inferior quality, high in sulphur and apparently in ash. The mine was not operated during the past year and it is not probable that it will ever be worked to any great extent.

SANTA FE COUNTY.

The coal mines of Santa Fe County have exhibited gratifying activity during the past fiscal year. The production, as reported by the mine operators, was 62,352 tons, an increase of 28,851.7 tons, or 86 per cent increase over the estimated output for the preceding fiscal year. The demand for the coal was greater than the output, production being restricted by the limited capacity of the mines and a scarcity of miners.

The major part of the coal production of this county is derived from the mines at Madrid, N. Mex., where both anthracite and bituminous coals are found within a few hundred feet of each other in the same coal seam. Eight coal seams, ranging from 1 foot 4 inches to 5 feet 5 inches in thickness, have been shown by shafts and drill holes, but the principal development has been upon the Lucas or White Ash seam and upon the Cook and White seam, the larger seams in the field.

The following section of the coal measures at Madrid, N. Mex., is republished, as it was incorrectly given in the last published annual report of this office, Members Nos. 4, 5, 14, and 15 having been omitted through error in typewritten copy. To avoid further mistakes, each member of the series in the measures is numbered.

Section of Cerrillos coal measures at Madrid, N. Mex.		Thickness, Ft. in.	
No. of member.			
1.	Sandstones and shales, eroded near water courses (about)-----	80	
2.	Lava sheets (trachyte)-----	425-500	
3.	Shales and sandstones-----	30	
4.	Coal (Lamb seam)-----	^a 2-3	
5.	Shales and sandstones-----	^b 5-10	
6.	Coal: White Ash coal seam; good grade bituminous coal ^c -----	5	5
7.	Sandstone-----	4	6
8.	Coal (bituminous)-----	2	
9.	Sandstone and shales-----	6	
10.	Coal (bituminous)-----	1	4
11.	Shales and sandstones-----	10	
12.	Coal (Peacock coal seam, bituminous)-----	2	7
13.	Shales and sandstones-----	95	
14.	Coal-----	1	6
15.	Sandstones and shales-----	15	
16.	Coal (Cook and White coal seam, bituminous)-----		6
17.	Shales and sandstones (about)-----	140	
18.	Coal (bituminous) reported in bottom of well-----	1	4
19.	Sandstones and shales, bottom of coal measures.		

CERRILLOS ANTHRACITE MINE.

This mine, formerly known as the Lucas mine, is located at the town of Madrid, N. Mex., in T. 14 N., R. 7 E., New Mexico principal base and meridian. The mine is operated by the Albuquerque and Cerrillos Coal Company. A first-class anthracite coal is produced, the demand for which exceeds the present capacity of the mine. A new slope is being sunk, known as No. 4 slope, which has attained

^a Coal thickest toward northern development.

^b Shales and sandstones thickest toward southern development.

^c Same bed, farther south, shows badly altered semianthracite and even graphite, and still farther south in the Lucas mine yields an excellent anthracite coal $3\frac{1}{2}$ to $3\frac{3}{4}$ feet in thickness. The differences in the coal are chiefly due to the alterations resulting from the approach of the lava sheet.

a depth of 1,450 feet; average dip, 15°; this slope will develop a hitherto unproven area and add considerably to the life of the mine, as the development thus far indicates. System of mining: Rooms are turned off main slope alternately on either side, 50 feet apart; the room necks are driven 75 feet, crossing manways and air courses parallel to main slope, before widening the rooms; width of rooms, 25 feet; length of rooms, 400 feet. The coal is shot off the solid, 33,000 pounds of black powder being used during the year. The shot holes are stemmed or tamped with slack and coal cuttings, the miners firing their own shots.

The old workings adjoining vented considerable volumes of CH₄ in the lower workings at a depth of from 2,000 to 3,000 feet, and it is probable that this opening will prove as gaseous as the mine adjacent as depth is attained. A fire boss inspects the mine before the men are allowed to enter. The following rule is in force:

FIRE-WATCH RULES.

No man of the day shift is allowed to enter this mine until 6.30 a. m., or until such time as the mine has been examined by the gas watch.

H. O. HOLEN, *Superintendent.*

The mine was operated 273 days during the past fiscal year; number of miners employed underground, 30; number of men underground, including drivers, timbermen, and all others not engaged in digging coal, 7; total persons underground, 37. Nationality of those employed underground: Italians, 75 per cent; negroes, 15 per cent; other English-speaking people, 10 per cent. Ninety per cent of the negroes, and all others employed underground, could write, as shown by signatures to vouchers. Three men were employed outside, Spanish-speaking natives of New Mexico, all of whom could write. Total output, 34,575 tons, consisting of all sizes, from slack to 7-inch lump, and all shipped to market; average price per ton at the mine, \$3.30; total value of coal shipped, \$114,097.50. The increase of tonnage over the tonnage (estimated) for the preceding fiscal year was 21,975 tons. The demand exceeded the production. The mine is equipped with a 60-horsepower hoist; an exhaust fan, double, 7 feet diameter, furnishes ventilation. The escape way is through the old workings of No. 3 opening. This escape way is not an approved second opening, but it is intended to sink another slope farther to the south, which will be connected with No. 4 slope by a cross entry from the bottom of the two slopes.

RECORD OF INSPECTION.

March 8, 1910.—Inspected new slope Anthracite mine No. 4. Air intake, 6,000 cubic feet per minute. Natural ventilation; fan not in operation. Thirty-five men underground on day shift, 5 on night shift. Found that the fire boss was not making any record marks on the working faces in the mine to show that he had visited each place every day before workmen entered. Instructed that he be compelled to mark dates at each face and place whenever inspected.

CERRILLOS BITUMINOUS MINES.

The Cerrillos bituminous mines are operated by the Albuquerque and Cerrillos Coal Company. Included in the production of these

mines are the output of the Lower and Upper Peacock mines and the White Ash mine. The Lower and Upper Peacock mines are upon the same coal seam, which lies about 24 feet below the White Ash seam. The Lower and Upper Peacock mine openings are about 2,600 feet apart. All three mines are situated in T. 14 N., R. 7 E., New Mexico principal base and meridian. Thickness of coal seam, about 2 feet to 2 feet 7 inches; dip of seam, 15°; character of coal, bituminous.

The Lower Peacock mine has been opened by a main drift entry across the dip for a length of 2,100 feet. The mine is ventilated by a furnace. Operation of this mine was suspended March 18, 1910, because of the cost of mining so small a seam and transporting the coal so far underground. The production from this mine is included with the production given from Upper Peacock mine.

The Upper Peacock mine is opened by a slope 750 feet in length, sunk upon the coal seam on same dip. Rooms are turned off the main slope every 50 feet. The room necks are 70 feet in length, driven across the back entries or air courses before widening out; width of room necks, 9 feet; length of rooms, 300 feet; width of rooms, 25 feet; distance of room centers, 50 feet.

The coal is shot off the solid, 30,500 pounds of black powder being used in the Cerrillos bituminous mine operations during the year. The shot holes are supposed to be stemmed or tamped with fire clay gathered in the rooms. The following is a copy of the rules:

RULES FOR SHOT FIRING.

Shot firing in this mine must be done only from 11.30 a. m. to 12 m. and from 4.30 p. m. to 5 p. m.

J. O. HOLEN, *Superintendent*.

One fire boss is employed to inspect the mines before the men enter.

The mine is equipped with a 70-horsepower steam boiler, and two hoisting engines (one 15-horsepower and one 25-horsepower).

The mine operated 259 days during the year; average number of miners employed, 30; day men, including drivers, timbermen, and all others underground not digging coal, 7; nationality of persons employed underground, Italians, 35 per cent; Spanish-speaking natives of New Mexico, 25 per cent; Slavonians, 10 per cent; negroes, 5 per cent; other English-speaking people, 25 per cent, 98 per cent of all of whom could write, as indicated by signatures to vouchers. Average number of men employed outside at the mine, 8; nationality, Spanish-speaking natives, 75 per cent; English-speaking people, 25 per cent, all of whom could write. Total output, 24,139 tons; amount used in operating the mine 550 tons; 4,381 tons were used in operating the anthracite mine and the railroad between the mines at Madrid and the Atchison, Topeka and Santa Fe Railroad at Waldo, N. Mex., 3 miles distant; net product shipped to market, 19,208 tons; approximate price per ton at the mine, \$1.85; total value of output, \$35,434.80. Increase of production (estimated) over tonnage for preceding fiscal year, 3,008 tons.

All sizes, from slack to lump, are shipped. The coal is sold in the towns of New Mexico and in the El Paso market, the product of the mines being shipped over the Atchison, Topeka and Santa Fe Railroad.

Some pillars and blocks of coal left in the White Ash mine were worked out, and this output is included in the foregoing figures of production of the Cerrillos bituminous mines.

RECORD OF INSPECTION.

March 7, 1910.—Investigated conditions attending reopening of the old White Ash mine by dropping a slope from the Lamb coal seam, through 5 feet of intervening rock strata, to the old White Ash mine. Found that sufficient precaution is not being taken to safeguard the men who are breaking through into the old mine, which made much gas when formerly operated. Gave instructions that a fire boss be employed to examine the mine each day before men enter, and that safety lamps be used by men breaking through into old ground or liable to break through or connect with any old workings.

March 8, 1910.—Inspected openings being made into old White Ash mine workings to extract pillars near surface. Air intake gave no register on anemometer; ventilation natural. Seven miners employed underground. Instructed that drill hole be kept 10 feet ahead in all workings advancing in the old White Ash mine, and that safety lamps be used by every person in the mine; also that ventilation be improved and great care exercised about shooting in the dry coal of the old White Ash pillars. Instructed that second opening, 150 feet distant, be made for escape way.

March 8, 1910.—Inspected Upper Peacock mine. Air intake, 1,480 cubic feet per minute. Ten miners and 2 drivers underground; also 4 mules. Instructed that ventilation be improved; also that a good and sufficient stairway with landings be built in air shaft, 63 feet in depth.

March 9, 1910.—Inspected Lower Peacock mine. Air intake, 3,150 cubic feet per minute. Ventilation by furnace. Air return, 6,200 cubic feet per minute. Six miners, 2 company men, and 2 mules underground. Coal all shot from the solid. Operation will be suspended next week.

LEWISOHN MINE.

The Lewisohn mine is located in the SW. $\frac{1}{4}$ SE. $\frac{1}{4}$, the SE. $\frac{1}{4}$ SW. $\frac{1}{4}$, the N. $\frac{1}{4}$ SE. $\frac{1}{4}$, and the S. $\frac{1}{4}$ NE. $\frac{1}{4}$ sec. 32, T. 13 N., R. 9 E., New Mexico principal base and meridian. The new slope is in the NE. $\frac{1}{4}$ SW. $\frac{1}{4}$ sec. 32, T. 13 N., R. 9 E. The mine is about 16 miles southeast from Madrid by wagon road and about 12 miles from San Pedro. The lump coal is hauled by wagon to Clark station on the Santa Fe Central Railway, 3 miles distant from the mine, and is shipped by rail to Santa Fe, N. Mex., and to other points along the line of the Santa Fe Central Railway, where it is sold for domestic purposes. It is also sold to the inhabitants of near-by towns in the gold-mining district, and when the gold and copper mines and smelter of the Santa Fe Gold and Copper Company are operated, all of the slack and smaller sizes are shipped by wagon to the works of the company and used for steam purposes. During the past fiscal year there has been comparatively little done at these metal mines and but little demand for the product of the coal mine.

The mine is owned by the estate of Leonard Lewisohn and operated by the Santa Fe Gold and Copper Company.

Two coal seams are disclosed by the development. The main slope is sunk to a depth of 350 feet on a seam 3 feet thick, dipping 15°. The lower foot of the seam is bone and the upper 2 feet is coal, with a strong sandstone top. At a depth of 300 feet in the slope a cross-cut has been run into the roof, showing 9 feet of strong sandstone, above which is another seam of coal 5 feet thick. The lower foot of this coal seam is bony, with 4 feet of clean coal above; strong sandstone roof. The principal development has been on the upper seam.

A horse whim is used for haulage from the mine; ventilation natural, through second opening. System of working, single entry, room and pillar. Average number of men employed underground, 5; average number of day men, including drivers and all others working underground not digging coal, 2; 1 man employed outside. All employed are natives of New Mexico of Spanish-speaking descent, and could write, as shown by signatures to vouchers. The mine was operated two hundred and twenty days; production 3,638.7 tons, a decrease of 863.3 tons from the preceding year; price per ton at the mine, \$1.50; total value of product, \$5,458.05.

SIERRA COUNTY.

Coal is known at several places in Sierra County on the plains on the eastern slope of the Caballo Mountains. Several prospect shafts and one or two diamond-drill holes were sunk to prove the value of the field, but the coal bearing rock strata are so much disturbed, broken, or eroded that in every instance development work was soon stopped.

SOUTHWESTERN MINE.

At a point a few miles west of Ash Spring, and about 14 miles west of Cutter station, on the Atchison, Topeka and Santa Fe Railway, the Southwestern Lead and Coal Company has sunk a shaft 172 feet upon a coal seam which dips about 80°. A drift run 145 feet from the bottom of the shaft has exposed 33 inches of clean coal, with bands of slate and coal extending about 18 inches above the clean coal. The mine is owned by E. S. Jones and is operated by the Southwestern Lead and Coal Company. The mine was not operated during the past fiscal year.

A transverse section of the seam, commencing at the bottom, is as follows: Shale bottom; coal 18 inches, with band of pure white fire clay, 1 to 8 inches thick, in lenses in middle of the coal seam; highly carbonaceous shale, 1 to 8 inches thick; sandstone top.

There was no response to a request made of the general manager of the company for data in regard to the operation of the mine during the year.

SOCORRO COUNTY.

Coal mining in Socorro County was not as prosperous during the fiscal year as the capacity of the mines would warrant. Total output, 60,185.71 tons, a decrease of 5,570.74 tons from the production of the preceding fiscal year.

CARTHAGE FUEL COMPANY'S MINES.

The Hilton, Bernal, and Government mines are operated by the Carthage Fuel Company, Powell Stackhouse, jr., general manager, and W. L. Weber, superintendent. A brief description of these mines was given in the annual report for 1906.

Depth of main slopes: Hilton, 1,260 feet; average angle of dip, 10°; Government, 2,000 feet; angle of dip, 12°; Bernal, old slope, 1,160 feet, new slope, 1,260 feet; angle of dip, 12°. System of work-

ing: Cross entries are driven from the main slopes at intervals of about 200 feet; from these cross entries rooms from 8 to 10 feet wide are driven approximately 60 feet apart; these pillars are again crosscut by rooms or cross entries 60 feet apart and parallel to the main cross entries, thus blocking the coal out in pillars approximately 60 feet square. More than 750,000 tons of coal is now blocked out in this manner in the three mines above named. The disturbed condition of the field renders this the better plan of development, as proven by experiments. When ready to pull these blocks from any district, a modified long-wall system is employed.

Ventilation: Hilton mine, exhaust fan; Government mine, force fan; Bernal mine, furnace. Shot-firing systems are in force at each mine, the shots being inspected by competent shot firers, who condemn any holes that are improperly placed. If the holes pass examination, the shot firer loads and ignites the shots when all other persons have left the mine. Record is kept of all condemned shots and by whom the holes were drilled. Any person who persists in drilling dangerous shot holes is discharged. A considerable percentage of the coal is pick mined. No trace of CH_4 has ever been found in the mines of the Carthage district during the thirty years the mines have been operated, but the coal dust of the field is highly inflammable, and a disastrous explosion some years ago cost 11 lives.

The equipment is given collectively for the three mines because the principal part of it is at the Government mine, from whence much of the power is supplied to the other two mines in the form of compressed air. There are in use 8 boilers, total capacity, 620 horsepower; 5 Vulcan hoisting engines (one 85-horsepower, one 60-horsepower, one 50-horsepower, one 40-horsepower, one 35-horsepower); 5 hoisting engines (24 horsepower each), 120 horsepower; total, 10 hoisting engines, with a combined capacity of 390 horsepower. There are also 3 air compressors, 100 horsepower each, compressed air being used for power underground and steam at the surface. Six Ingersoll mining machines and 4 punchers are used intermittently, only 1,233.7 tons being mined by machine during the fiscal year.

A schoolhouse, erected by the Carthage Fuel Company, furnishes room for educational facilities for the children of the camp. Two efficient teachers are employed during the scholastic term. Comfortable residences are provided for the employees at the usual reasonable rents charged in the various coal-mine camps.

The number of men employed directly at the mines, underground and on top, is 144, as will be seen in statistics of each mine. Of the total number employed, 50 per cent were natives of New Mexico of Spanish descent, 98 per cent of whom could write, as shown by signatures to vouchers; 25 per cent were Americans, 15 per cent Slavonians, and 10 per cent Italians, all of whom could write.

The officials make every effort to provide for the safety of the men employed. The mines produce an excellent bituminous coal, from which several years ago superior coke was made in ovens located at San Antonio, N. Mex. Excellent fire clay is found adjacent to the coal mines, and in previous years large quantities were shipped to the smelting plants of the Southwest. There was little demand for this material during the year.

HILTON MINE.

The Hilton mine is located in NE. $\frac{1}{4}$ sec. 15, T. 5 S., R. 2 E., New Mexico principal base and meridian, on the Carthage coal seam; thickness of coal, 4 to $4\frac{1}{2}$ feet; dip of coal, 10° . Average number of miners employed, 30; company men underground, not digging coal, 17; total number of persons underground, 47; men employed outside at the mine, 9. The mine was operated 280 days. Total output, 21,429.16 tons; amount used in operating mine, 367.07 tons; net product shipped to market, 21,062.09 tons; price per ton at the mine, \$2.50; total value of coal shipped, \$52,655.22. The coal is sold for steam and domestic purposes throughout the Southwest, and is used on the Mexican Central and other railroads and at metal mines in Mexico. The production of the mine, as also that of the Bernal and Government mines, was restricted by inadequacy of equipment.

RECORD OF INSPECTION.

November 5, 1909.—Investigated circumstances attending accident whereby Santos Tellas was injured in Hilton mine, by fall of rock, and paralyzed; injury may result fatally. Found that on the day the accident occurred, Saturday, September 15, 1909, the mine was not operated. Tellas reported to Sam Ellwood, pit boss, that he had completed the crosscut he was working in, and the pit boss told Tellas that he would give him a new place on Monday. Tellas then arranged with a fellow miner, Sebastian Cordoba, to work Cordoba's place and for Cordoba to take the new place promised Tellas. Cordoba was not working that day, but in the afternoon Tellas went to work in Cordoba's place in the mine without informing the pit boss or anyone else. About 4 feet back from the face a large piece of top rock, called locally by the miners "brushing" rock, as it is always taken down to the sandstone, had been left by Cordoba. Tellas went to work under this rock, and about 4 p. m. it fell upon him, catching his body below the breast upon a pile of slack. He was missed at the boarding house, and at 7 p. m. a search was made and he was found, apparently slightly injured, but paralysis developed a few days later and it was found the spine was injured. The injured man is still alive, with a chance for recovery.

November 8, 1909.—Air intake, main slope, $a40$ square feet $\times v280=11,200$ cubic feet per minute; dry-bulb thermometer, 64° ; wet-bulb thermometer 48° ; barometer, 25.23 inches; relative humidity, 31 per cent. Fan (exhaust), 86 revolutions per minute. Another intake through open ground is very difficult to measure, as the air travels through old gobs. Air return from bottom of No. 2 slope, taken at end of No. 17 entry, 350 feet from bottom; volume of air travelling 1,800 cubic feet per minute; dry-bulb thermometer, 74° ; wet-bulb thermometer, 62.5° ; barometer, 25.5 inches; relative humidity, 55 per cent. Air return to fan, $a29.25$ square feet $\times v520=15,200$ cubic feet per minute; dry-bulb thermometer, 70.5° ; wet-bulb thermometer, 64° ; barometer, 25.32 inches; relative humidity, 72 per cent. Seventeen company men, 22 contract miners; total, 39 men and 3 mules underground. Mine in good condition; air well distributed; shots inspected, loaded, and ignited by shot firers.

February 23, 1910.—Inspected mine. Air intake through main slope, 13,000 cubic feet per minute. Fan (exhaust), 98 revolutions per minute; dry-bulb thermometer, 56° ; wet-bulb thermometer, 40° ; barometer, 25 inches; relative humidity, 22 per cent. Air return to fan, 23,750 cubic feet per minute (some air entering mine from caved ground); dry-bulb thermometer, 65° ; wet-bulb thermometer, 61° ; barometer, 25 inches; relative humidity, 31 per cent. Thirty miners, 19 company men; total, 49 persons, and 4 mules underground. Inspected all workings in operation. Found miners undermining all coal before placing shots. All shots examined, loaded, and ignited by shot firers when all other persons are out of the mine. No CH₄ ever found in any workings in this field. Mine well timbered.

March 28, 1910.—Inspected mine. Air intake, 14,400 cubic feet per minute. Fan (exhaust), 90 revolutions per minute. Thirty miners, 16 company men; total, 46 persons, underground; also 4 mules. Found air well distributed, except in advanced workings off new slope off fourth left entry. Instructed that ventilation be better distributed to these workings. Air return to fan, 20,520

cubic feet per minute. All shots loaded and ignited by shot firers when men are out of the mine. No gas in this field. Mine well timbered.

GOVERNMENT MINE.

The Government mine is located in the SW. $\frac{1}{4}$ NW. $\frac{1}{4}$ and the NW. $\frac{1}{4}$ SW. $\frac{1}{4}$ sec. 15, T. 5 S., R. 2 E., New Mexico principal base and meridian. It is called the Government mine because it was operated forty years ago by government troops that were camped about 20 miles distant, on the Rio Grande. The mine is on the Carthage seam, which is from 5 to 6 feet thick, with a dip of 12°. The mine was operated 280 days; average number of miners employed, 20; company men, underground, 16; average number of men employed outside at the mine, 16. The number of men employed outside is increased by machinists, carpenters, etc., who do work for all of the company's mines. The excessive quantity of coal used to operate the mine results from the mine furnishing compressed air for pumping and hoisting underground at the other mines. Total output, 15,021.40 tons; amount used in operating the mine, 6,248.32 tons; net product shipped to market, 8,773.08 tons; price per ton at the mine, \$2.50; total value of product shipped, \$21,932.70. The coal was shipped via the New Mexico Midland Railroad and the Atchison, Topeka and Santa Fe Railroad to towns of the Southwest for steam and domestic fuel, and to the railroads of Mexico.

RECORD OF INSPECTION.

November 10, 1910.—Inspected mine. Air intake, 21.25 square feet $\times$ v810 = 17,212.5 cubic feet per minute; fan (force), 86 revolutions per minute; dry-bulb thermometer, 67°; wet-bulb thermometer, 55°; barometer 25.125 inches; relative humidity, 48 per cent. Air return at mouth of main slope, 245 square feet $\times$ v160 = 7,200 cubic feet per minute (greater part of air lost through old workings after passing the men); dry-bulb thermometer, 68°; wet-bulb thermometer, 65°; barometer, 25.07 inches; relative humidity, 86 per cent. Twenty-one company men, 23 contract miners; total, 44 persons, and 2 mules underground. Air not well distributed; instructed that distribution of air be improved. Mine dry, but all shots are inspected, loaded, and ignited by shot firers after all other persons are out of the mine.

February 25, 1910.—Inspected mine. Fan (force), 60 revolutions per minute. Air intake, 11.160 cubic feet per minute; dry-bulb thermometer, 45°; wet-bulb thermometer, 38°; barometer, 25.32 inches; relative humidity, 55 per cent. Air return at mouth of main slope, 6,750 cubic feet per minute (part of air lost through caved ground, on return air, after passing workmen); dry-bulb thermometer, 51°; wet-bulb thermometer, 50°; barometer, 25.25 inches; relative humidity, 94 per cent. Air not well distributed; new intake-air course being constructed, which will lessen distance from intake at fan to working places. Twenty-four miners, 16 company men; total, 40 persons, also 2 mules underground. Instructed that landings be constructed at ends of ladders in fan shaft, which is also escape shaft. Shot firers employed as above.

March 26, 1910.—Inspected mine. Air intake, 18,300 cubic feet per minute; fan (force), 60 revolutions per minute. Air return, main slope, 14,300 cubic feet per minute (balance of air escapes through openings to old air shaft after passing men). Twenty miners and 10 company men underground. Found air courses much improved since last inspection. Ladder way in air shaft not yet constructed; gave necessary instructions.

April 27, 1910.—Inspected mine. Air intake, 16,000 cubic feet per minute; fan (force), 70 revolutions per minute. Ventilation not carried to extremities of workings, and some of the working faces excessively hot and air impure. Ladderway in fan shaft has not been improved by construction of landings at each section, as heretofore instructed. Mr. W. L. Weber, superintendent, promised to have improvements made. Nineteen miners, 19 company men; total, 88 men underground. Air return 13,500 cubic feet per minute; part of air escapes through gob to old air shaft.

BERNAL MINE.

The Bernal mine is located in the NW. $\frac{1}{4}$ SE. $\frac{1}{4}$ and the SE. $\frac{1}{4}$ SW. $\frac{1}{4}$ sec. 15, T. 5 S., R. 2 E., New Mexico principal base and meridian. The mine is upon the same coal seam as the Hilton and Government mines and lies between those mines. Thickness of coal seam from 4 $\frac{1}{2}$ to 6 feet. Number of days mine was operated, 280; number of miners employed, 16; number of company men underground, 12; number of men outside, 8. Total output, 12,137.15 tons; amount used in operating mine, 209.04 tons; net production shipped, 11,928.11 tons; price per ton at mine, \$2.50; total value of product shipped, \$29,820.27. The coal was shipped via the New Mexico Midland Railroad and the Atchison, Topeka and Santa Fe Railroad to the towns of the Southwest and to the railroads of Mexico.

RECORD OF INSPECTION.

November 6, 1910.—Inspected mine. Air intake, old slope, 6,930 cubic feet per minute; dry-bulb thermometer, 49°; wet-bulb thermometer, 39°; barometer, 25.37 inches; relative humidity, 42 per cent. Air intake, new slope, 450 square feet $\times$ v15 = 750 cubic feet per minute (air intake not constant, but will average fully this amount); dry-bulb thermometer, 58°; wet-bulb thermometer 46°; barometer, 25.37 inches; relative humidity, 41 per cent. Total air intake, 7,680 cubic feet per minute. Air at bottom of second dip off new slope, 1,150 feet from mouth of slope, gave humidity test as follows: Dry-bulb thermometer, 69°; wet-bulb thermometer, 63°; barometer, 25.52 inches; relative humidity, 73 per cent. Air sluggish; gave no register on anemometer. Air return to furnace, 228 square feet $\times$ v260 = 7,280 cubic feet per minute; dry-bulb thermometer, 63°; wet-bulb thermometer, 59°; barometer, 25.42 inches; relative humidity, 80 per cent. Part of return air lost through old workings to old air shaft, after passing workmen. There were underground 9 company men and 5 contract miners, a total of 14 persons, and 1 mule. Found trips being hoisted without a drag; instructed that one be attached to ascending trips. Instructed that air be better distributed. Mine dry, but shots all ignited by shot frirs after all other employees are out of the mine. Shot frirs condemn misplaced shots.

February 24, 1910.—Inspected mine. Air intake, 10,800 cubic feet per minute; dry-bulb thermometer, 50°; wet-bulb thermometer, 44°; barometer, 25.15 inches; relative humidity, 64 per cent. Furnace ventilation. Underground, 17 miners and 11 company men; total 28 persons, and 2 mules. Air return to furnace, 13,300 cubic feet per minute; dry-bulb thermometer, 57°; wet-bulb thermometer, 52°; barometer, 25.15 inches; relative humidity, 73 per cent. Inspected all workings in operation. Miners undermining all coal before placing holes for shots. All shots examined, loaded, and ignited by shot frirs when all other persons are out of the mine. No CH₄ ever found in this field. Mine well timbered. Air not well distributed.

EMERSON MINE.

The Emerson mine is owned and operated by Emerson & Allaire; P. A. Allaire, general manager; Robert McIntyre, superintendent. The mine is upon the Carthage coal seam, and is located in the S. $\frac{1}{4}$ sec. 9 and NW. $\frac{1}{4}$ NE. $\frac{1}{4}$ sec. 16, T. 5 S., R. 2 E., New Mexico principal base and meridian. Thickness of coal seam, 6 feet; dip of coal, 10° to 30°. The mine is opened by a slope driven on the dip of the coal to a depth of 750 feet. System: Single entry, room and pillar; ventilation natural, through air shaft; rope haulage, steam power, capacity, 140 horsepower. The mine was operated 229 days during the year; average number of miners employed, 20; average number of company men underground, not digging coal, 8; average number of men employed outside at mine, 4. Ninety per cent of those employed were natives of New Mexico of Spanish descent and 10 per

cent were Italians. All employed could write. Total production, 11,598 tons; amount used in operating the mine, 300 tons; net product shipped to market, 11,298 tons; price per ton at the mine, \$2.50; total value of product shipped, \$28,245. The coal was shipped via the New Mexico Midland Railroad and the Atchison, Topeka and Santa Fe Railroad to towns of the Southwest and to the railroads in Mexico.

RECORD OF INSPECTION.

November 9, 1909.—Inspected mine. Air intake, $a35.77$ square feet $\times v200 = 7,150$ cubic feet per minute; dry-bulb thermometer, 62° ; wet-bulb thermometer, 52° ; barometer, 25.45 inches; relative humidity, 53 per cent; natural ventilation by air shaft. Air test for humidity on fourth right entry, 100 feet from slope and about 650 feet below pit mouth: Air sluggish, no register on anemometer; dry-bulb thermometer, 68° ; wet-bulb thermometer, 64° ; barometer, 25.6 inches; relative humidity, 81 per cent; standing water in entry. Air return to new slope, $a26$ square feet $\times v310 = 8,060$ cubic feet per minute; dry-bulb thermometer, 66° ; wet-bulb thermometer, 58° ; barometer, 25.3 inches; relative humidity, 64 per cent. Seven company men and 18 miners, total, 25 men; no mules. But little shooting done, and only by permission of superintendent and after coal is undermined or sheared on side to depth of hole. Mine in very good condition; air well distributed; mine well timbered.

GAP COAL MINE.

The Gap coal mine is located about T. 9 N., R. 7 W., New Mexico principal base and meridian. It is owned by the Gap Coal Company; John P. Murray, general manager. It is opened by a slope entry about 280 feet in depth, dipping 20° . Thickness of coal, from 6 to 15 inches. Operations were suspended about May 15, 1909, and have not since been resumed.

FATAL ACCIDENTS.

List of fatal accidents in coal mines in New Mexico during the fiscal year ended June 30, 1910.

Date.	Location of mine.	Name of mine.	Name of victim.	Nativity.	Age.	Widow or orphans left.	Cause of accident.
1909.					Yrs.		
July 1	Dawson.....	No. 1.....	Alexis Rokovitch..	Mont..	39	Widow.....	Struck by empty mine car.
Aug. 16	...do.....	No. 2.....	Frank Moreno.....	Mex...	22	Single.....	Fall of rock.
Sept. 3	Koehler.....	No. 1.....	Guiseppi Baldassar	Ital...	34	Widow and 2 children in Italy.	Run over by loaded mine car.
Nov. 11	Van Houten..	No. 2.....	Fred Tori.....	...do..	32	Widow and 2 children.	Fall of coal.
Dec. 3	...do.....	No. 4.....	Peter Vintich.....	Mont..	25	Single.....	Fall of rock.
22	Gibson.....	Weaver.....	Julian Rodriguez..	Mex...	35	...do.....	Asphyxiated by mine fire.
22	...do.....	...do.....	Porfillo Garcia....	...do..	38	Widow.....	Do.
1910.							
Jan. 16	...do.....	...do.....	Tony Petrovitch...	Slav...	18	Single.....	Fall of rock.
May 2	Dawson.....	No. 4.....	Tom Niccollinis...	Greek.	27	Widow.....	Do.
9	Gibson.....	Heaton.....	George Pecoric....	Slav...	19	...do.....	Do.
19	...do.....	Weaver.....	Gaspar Gronovich..	...do..	19	Single.....	Do.
24	Dawson.....	No. 2.....	John Golik.....	Aust..	18	...do.....	Fall of coal.
June 9	...do.....	...do.....	Juan Perez.....	Mex...	23	Widow and 2 stepchildren.	Do.
24	Carthage.....	Hilton.....	Jose R. Serno.....	...do..	21	Widow and 2 children.	Fall of rock.

Summary of casualties at New Mexico coal mines for fiscal years 1906-1910.

	1906-7.	1907-8.	1908-9.	1909-10.
Fall of coal or rock.....	12	16	13	10
Gas or dust explosions.....	10	11	.....	.....
Mine cars.....	6	5	5	2
Miscellaneous.....	3	2	.....	2
Total.....	31	34	18	14
Total number of persons employed.....	3,069	3,765	3,231	2,861
Death rate per 1,000.....	10.14	9.08	5.57	4.89

RECOMMENDATIONS.

I have frequently recommended that more stringent laws be passed which would make every person in and about a mine subject to prosecution and punishment for any breach of discipline whereby the life or person of himself or any one else might be endangered or by which property might be injured or destroyed.

The interest taken in mine rescue appliances and apparatus is highly commendable and is producing decidedly beneficial results in many ways, especially by awakening interest in the subject of mine accidents; but the prevention of mine accidents demands and should receive fully as much attention as the rescue of victims.

While care and discipline should be maintained to prevent great catastrophes and means of rescue in all emergencies should be provided, yet fully as strict care and discipline should be exercised to prevent the fatalities which occur singly, caused by falls of rock and coal, and which outnumber the fatalities from explosions by more than four to one. To this end I offer the following suggestions, as heretofore offered in my reports, with a few additions:

Stricter discipline at and within the mine, which discipline can only be enforced by more specific and stringent laws than those now on the statute books.

Absolute prohibition of shooting off the solid or shooting overburdened holes.

Only permissible explosives to be used.

In all mines employing ten or more men underground all shots to be inspected and loaded by competent shot firers, and ignited by mechanical devices or by shot firers after all other persons have left the mine. Shot firers to have full legal authority to condemn all misplaced holes.

Severe penalties to be imposed by law for abusing any shot firer by innuendo, abusive language, or assault because he has condemned any shot hole in performance of official duty.

At least three rescue helmets, of approved type, to be kept in constant readiness and in good condition at all mines employing 25 or more men underground.

Increased care for his own safety made compulsory on the miner; requirement that he examine and keep his place well timbered at all times and be satisfied with a smaller tonnage. To offset the lessened output, the price paid for mining should be increased.

Fire bosses should be required to make a memorandum within the mine of all dangerous conditions found, and should record it in a book kept for the purpose near the mouth of the mine.

Shot firers should keep a record of dangerous, condemned shot holes, with the name and number of miner. For a continuation of such dangerous practices the miner should be discharged.

All nonfatal accidents to be reported to the mine inspector each month, as well as all fatal accidents.

Frequent nonfatal accidents indicate laxity in care and discipline. If they are reported and measures are taken for their prevention, more serious accidents may be avoided.

A tentative draft of the many necessary amendments and additions to the United States law for the protection of the lives of miners in the Territories has heretofore been submitted to the Director of the United States Geological Survey, with the recommendation that such laws be presented for passage by Congress.

COKE PRODUCTION.

The demand for coke was restricted by lack of progressive conditions at the smelting works of the Southwestern States and Territories and Mexico, due to a stagnant copper market, and the outlook is not bright for increased activity during the ensuing year. That the coke manufacturing industry in New Mexico exhibits a healthy condition is demonstrated by the increased production shown in the table below. While a greatly increased consumption of coke can not be reasonably anticipated for the near future, a permanent demand for the product of all the ovens now erected in New Mexico may be considered assured.

Production of coke in New Mexico for the fiscal year ended June 30, 1910.

[Tons are of 2,000 pounds.]

Location of ovens and name of operator.	Number of ovens.		Number of days operated.	Coke made.	Value of product at ovens.		Number of men employed at—	
	In camp.	Operated.			Per ton.	Total.	Coke ovens.	Washeries.
<i>Stag Cañon Fuel Co., Dawson.</i>	570	496	365	<i>Tons.</i> 263,034.10	<i>b</i> \$3.00	\$789,102.30	159	25
<i>St. Louis, Rocky Mountain and Pacific Co., Koehler....</i>	210	902	365	<i>c</i> 88,989	2.99	266,077.11	45	6
<i>St. Louis, Rocky Mountain and Pacific Co., Gardiner....</i>	200	140	259	<i>d</i> 45,079	2.99	134,786.21	45	6
Total.....	980	838	.....	397,102.10	.....	1,189,955.62	249	37
Total, 1909.....	966	966	.....	384,754.30	.....	1,158,685.74	(<i>e</i>)	(<i>e</i>)
Increase or decrease.....	+14	-128	.....	+12,347.80	.....	+31,279.88	.....	.....

a Decrease, 33,391.90 tons.

b Approximated.

c Increase, 66,229 tons.

d Decrease, 20,469.30 tons.

e Not reported.

JO E. SHERIDAN,
United States Mine Inspector for New Mexico.

THE SECRETARY OF THE INTERIOR.

